

Options-stage regulation impact statement

Consumer safeguards for optional backup power supply arrangements

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Introduction

The issues canvassed in this Options-stage Regulation Impact Statement (RIS) cover a specific policy matter relating to the operation of the telecommunications network in a power outage, but should be seen in the context of the government's overall approach to effectively transition end users to a national broadband network.

The conventional copper-based telecommunications network operates through power being provided within the network itself, from the local exchanges. As such, in the event of a localised or widespread power outage, the telecommunications network continues to be operative, providing mains power or backup power at the local exchange is available.

This is not the case in optical fibre telecommunications networks, such as being rolled out in the National Broadband Network (NBN), with consequential risks to consumers at times of power outage.

In August 2012, the former government indicated its intention to move to an optional backup power supply policy for services connected to the National Broadband Network (NBN), replacing the previous policy of mandatory backup power supply.¹ Under this new policy, an end user would need to choose to either accept or decline a backup power supply at the end-user's premises, as part of receiving a service on the NBN fibre network or NBN equivalent networks.²

A key element of this approach was that an end user should be supplied with clear and comprehensive information on how backup power supply operates. This better enables the end user to make an informed choice about whether or not to accept a backup power supply at the end-user's premises as part of the service. In addition, end users should also be made aware of the service continuity implications associated with that choice, including those relating to other devices at the premises relying upon telephony access. The policy also indicated that carriage service providers (CSPs) should be responsible for providing this information and ensuring that informed consent from end users is obtained and recorded in a consistent and appropriate manner.

The telecommunications industry, including NBN Co, undertook negotiations to have the policy requirements incorporated into NBN Co's wholesale broadband agreement, which sets out the contractual terms and conditions under which NBN Co supplies products and services to its wholesale customers (CSPs). However, negotiations did not achieve a consensus that would allow the wholesale broadband agreement to give full effect to the government's policy, particularly in regard to the provision of clear and comprehensive information. The wholesale broadband agreement that will commence in December 2013 enables CSPs to confirm to NBN Co that an informed consent transaction has been undertaken with the end user prior to service provision, but does not go to the detail of that transaction or how it is recorded.

In response to a request by Senator the Hon. Stephen Conroy, the former Minister for Broadband, Communications and the Digital Economy (received on 18 June 2013), the ACMA has been considering whether regulatory options are desirable to support the implementation of optional backup power supply for NBN and NBN equivalent network services.

¹ NBN Co Corporate Plan 2013-15, 8 August 2012.

² Equivalent networks are designated superfast telecommunications networks as defined in section 152AGA of the *Competition and Consumer Act 2010*.

In October 2013, the Hon. Malcolm Turnbull, MP, the Minister for Communications, confirmed his support for a similar policy approach and for the ACMA to continue with its consideration of regulatory options.³

The options presented for consideration are that:

- > no regulatory action is taken;
- > industry develops a guideline or code; or
- > the ACMA makes a written determination under subsection 99(1) of the Telecommunications Act 1997 (the Act) to impose obligations on CSPs.

The key principle is to assist in the development and implementation of processes to ensure that relevant end users are adequately informed of the implications of accepting or declining a backup power supply unit for their NBN or NBN equivalent network service and that appropriate records are retained.

This options-stage RIS provides background to the optional backup power supply policy and identifies major issues driving the need for certainty in delivery of the government's policy. It outlines the objectives of any intervention and puts forward options for achieving the objectives. In addition, it provides a framework for undertaking a detailed cost benefit impact analysis in the next stage of the RIS process, based largely on feedback being sought in the proposed consultation process.

With the certification of this options-stage RIS, the ACMA will be asked to agree to consult on the development of a service provider determination to act as a consumer protection mechanism for the provision and operation of backup power supply services. If agreed, a public consultation process will be undertaken on the options presented, including the proposal to regulate, with a details-stage RIS being prepared to assist the Authority's final decision.

Additional elements to be examined in a details-stage RIS will include:

- > a cost benefit analysis of the impact of each option under consideration,
- > details of the consultation process and feedback from submitters,
- > the conclusion reached, and the recommended option, and
- > details regarding implementation and review of the preferred option.

This analysis of optional backup power supply options will be informed by the feedback sought in the consultation process, particularly about costs and benefits.

Such key implementation issues need to be managed well for end users, given the potential impact of broad-based migration to a national broadband network and the related reputational and practical dis-benefits if end users are not enabled to make sensible and relevant decisions appropriate to their individual circumstances.

³ The government's policy now includes a fibre-to-the-node rollout approach for the majority of premises. Optional backup power supply arrangements at the premises could be relevant to this approach also based on the network design.

Background

Australia's national broadband network

NBN Co was established in April 2009 to design, build and operate a high speed wholesale national broadband network. NBN Co is a wholly owned Commonwealth government business enterprise and reports to the Minister for Communications and the Minister for Finance (the Shareholder Ministers).

The NBN is Australia's first national wholesale-only, open access broadband network offering equivalent terms and conditions to all access seekers or CSPs. NBN Co is building the network and selling wholesale services to CSPs. In turn, CSPs will offer retail services to end users and/or wholesale services to other service providers. This is a significant structural change to Australia's telecommunications industry, aimed at encouraging competition and enabling the digital economy.

Part Two of the *National Broadband Network Companies Act 2011* limits an NBN corporation (currently NBN Co Limited, NBN Tasmania Limited and NBN Co Spectrum Pty Ltd) to operating as a wholesale-only telecommunications company in terms of the goods and services it supplies, and the investments that it makes. For example, NBN Co cannot supply a content service or other non-communications service and is unable to form contracts directly with end users.

On 24 September 2013, the Shareholder Ministers wrote to NBN Co setting out initial instructions⁴ and indicating that the government would issue a number of further directions to the NBN Co board in the coming months. The letter confirmed the government's commitment to completing construction of the NBN. It stated that government policy will enable flexibility and discretion in NBN Co's technology and network design decisions and that the network should be upgraded in the most cost-effective way using the best matched technology.

Power supply and fibre-based networks

The copper lines used in legacy telecommunications networks typically allow continued operation of a corded standard home telephone services in the event of a mains power failure in end-user premises, unless the network itself is damaged⁵ (This may not be the case with a cordless standard telephone⁶, although some newer-style cordless handsets can continue to operate in their cradles for a period of time.)

In contrast, a fibre optic cable is unable to carry electrical power to the end-user's premises and requires mains power from within the end-user premises or from elsewhere in the network to function.

As a result, during a mains power failure, services—including telephony—supplied over fibre optic cable either to an adjacent node or to the premises will cease to function immediately unless there is an alternative backup power supply available. This may result in potential risks to end users, such as lack of access to emergency services and other important contacts and support. Access to other devices and

⁴ The letter stated that it "amends and forms part of the Statement of Expectations between the Commonwealth and NBN Co Limited."

⁵ Copper telecommunications networks incorporate backup generators and batteries at local exchanges that are activated in the event of a mains power failure.

⁶ 'Cordless' or 'DECT' telephones are telephones in which the base unit is connected by wire to a standard telephone socket but by radio signals to the handset. Most cordless phones require mains power to operate, though some may offer battery backup functionality during a mains power failure as a feature.

services that rely on the telephone connection, including personal emergency alarms and security alarms, would also be lost.

NBN network rollout

Fibre to the premises deployment model

At 30 June 2013, 207,500 premises in Australia had been passed by fibre with 33,600 premises activated and using NBN services.⁷ Under the current fibre to the premises⁸ (FTTP) deployment policy, all premises must receive a backup power supply unit. It is therefore understood that approximately 33,600 backup power supply units have been installed in premises to 30 June 2013.

For FTTP planning purposes, NBN Co had assumed that 50 per cent of fibre end users with new installations would elect not to have a backup power supply unit installed when able to nominate whether or not they wanted NBN Co to provide a backup power supply.⁹ However, feedback from industry meetings suggested that, given the choice, end-user take-up of backup power supply in a FTTP deployment may in fact be even lower.¹⁰

An important aspect of FTTP deployment is the progressive migration of customers onto a fibre-based network and the subsequent decommissioning of the existing copper network. In general terms, once an area has been declared 'ready for service' by NBN Co, disconnection of copper services in that rollout area will be completed approximately 18 months later. Six months prior to the disconnection date, any remaining end users who depend on the copper network for voice-only services will be provided with targeted migration information by participating CSPs (subject to any arrangements related to the ongoing supply of special services).

The first 15 rollout areas to receive NBN FTTP are scheduled to be disconnected from the copper network in May 2014. Up to 48,000 end users are in these areas, and many still have access to the copper network. It is expected that end users who have not voluntarily migrated to the NBN at an earlier opportunity might include consumers who are more vulnerable, such as older persons and those with limited English language fluency. Where the options available are not well understood, such consumers have an elevated risk of making poor decisions which do not reflect their critical needs. For example, over 1 million end users have a personal medical alarm and/or a security alarm which is reliant on a working telephony network.

Given the migration arrangements, it is anticipated that the rate of migration of end users (especially amongst such vulnerable groups) to the fibre network in these 15 rollout areas will accelerate in the six months prior to the disconnection date. This will also occur in other rollout areas progressively, as the copper decommissioning approaches. As such, there is a demonstrable urgency to provide appropriate safeguards for optional backup power supply.

Fibre to the node deployment model

Under the fibre to the node¹¹ (FTTN) model now to be deployed under the government's policy to the majority of end users, it is understood to be technically viable for a backup power supply to be provided either at the node or alternatively in

⁷ NBN Co meets revised end-of-year fibre rollout target, Media Release, NBN Co, 4 July 2013.

⁸ Fibre to the premises, also known as fibre to the home, refers to the installation of optical fibre from the carrier's network directly into an end-user's premises.

⁹ 2012-15 Corporate Plan, NBN Co, page 12, 6 August 2012.

¹⁰ ACMA and Communications Alliance industry workshop held on 9 August 2012.

¹¹ FTTN refers to the installation of optical fibre to a junction box (node) in a neighbourhood that serves a few hundred customers within a radius of about a kilometre, with the final connection from the node to the customer typically being copper.

the end-user premises – or possibly at both locations. At this point, it remains unclear which design option will be implemented under the FTTN model.

If a backup power supply is located at the node, end users need to be made aware that NBN services will only offer a limited period of continuity of service in the event of a mains power failure.

If a backup power supply is an option for installation at end-user premises, similar information issues arise to a FTTP deployment model, such as the need for periodic battery replacement.

Government policy on provision of backup power supply

In line with the previous government's request in its Statement of Expectations issued to NBN Co on 17 December 2010, NBN Co is currently providing a backup power supply unit with an initial battery as a mandatory adjunct to the NBN connection box deployed at an end-user's premises. This provides continuous telephone capability for a standard, non-powered, home telephone connected to a service on the voice port of the NBN connection box, for a limited time¹² in the event of a mains power failure.

In its 2010 Statement of Expectations, the government indicated that the mandatory backup power supply deployment model was an interim measure until emergency service organisations and other stakeholders could be consulted on the most appropriate way of ensuring access to a backup power supply for those who need it. During 2012, the former Department of Broadband, Communications and the Digital Economy (now Department of Communications) undertook a consultation process with representative stakeholder groups and also conducted consumer research in consultation with NBN Co to gauge attitudes to the backup power supply service.

The consumer research¹³ found that the majority of consumers surveyed (56 per cent) consider that the installation of a backup power supply unit should be based on a consumer choice. Eighty per cent indicated they would choose to use a mobile phone to call emergency services during a power failure. Anecdotal comments from this research also highlighted a number of consumer concerns regarding the installation of backup power supply units, such as that the unit was 'aesthetically unappealing' and 'battery backup is an unnecessary waste of money and resources'.

There were also concerns regarding the environmental impact of battery disposal. While batteries are recyclable, there is a potential for batteries to be disposed of incorrectly, for example, disposed of in household waste to landfill where they could lead to environmental damage over time. In addition, issues were raised about the risks if vulnerable end users did not fully understand the unit's operating functions and how to maintain the backup power supply.

On the basis of consumer research and consultation with stakeholders, the government determined that there was limited support for mandatory deployment and broad support for provision of optional backup power supply.

Subsequently, the government directed NBN Co to implement optional backup power supply for all end users, other than for priority assistance customers (for whom a backup power supply remains mandatory). This decision was noted in the NBN Co Corporate Plan 2013-15, which was published on 8 August 2012.

¹² Estimated to be up to 11 hours – see http://www.nbnco.com.au/content/dam/nbnco/documents/sfaa-wba-nebs-product-tech-spec_20131219.pdf, page 74.

¹³ The former Department of Broadband, Communications and the Digital Economy conducted consumer research between February and April 2012 to gather primary data on attitudes towards deployment of backup power supply units. The research was conducted via an online survey of consumers connected to the NBN in first release sites around Australia. There were approximately 286 respondents at the time of reporting on 26 March 2012.

The ACMA understands that the government anticipated that implementation of optional backup power supply would deliver significant benefits and cost savings. However, full realisation of these benefits and cost savings would only occur if appropriate industry processes were in place to ensure that effective informed consent from end users was obtained and recorded.

Critical to the delivery of expected benefits were the need for implementation of a timely solution and a mechanism for enforcement, if required, so as to ensure a high degree of compliance.

To achieve this, the government advised the ACMA¹⁴ that it considered arrangements should be in place to ensure that the informed consent of end users is acquired and retained in a consistent manner. The government considered the following key elements would need to be addressed:

- > a requirement for CSPs to implement an informed consent process based upon NBN Co's 'Informed Consent Guidelines,' to give end users sufficient information during the sales process about whether to accept or decline the installation of a backup power supply unit, based on their individual circumstances
- > a requirement for CSPs to retain sufficient documentary evidence of communications with end users about the choice made by the end user, including available options, and the final decision about whether a backup power supply has been accepted or declined.

The government asked the ACMA to consider potential regulatory mechanisms—including development of a service provider determination—to support implementation of the implementation of an optional backup power supply model for residential NBN services.

In October 2013, the government, through the Minister, confirmed that it wished to continue with the rollout of optional backup power supply based on these key elements. This policy embraces the revised suite of delivery model for fibre services, i.e. to cover both FTTP and FTTN models.

More broadly, the continuity of key services delivered over a national broadband network is seen as critical to maintaining public confidence in this migration process. Negative consumer experiences, particularly if leading to personal harm or property damage, might encourage 'retrofitted' regulatory and/or architectural solutions which are more complex and expensive to implement and operate.

Fixed-wireless and satellite areas

Under regulations and contract with the Telecommunications Universal Service Management Agency (TUSMA),¹⁵ Telstra will continue to make voice services on its copper network available in an area to be serviced by a fibre-based network until that fibre network is rolled out and the copper exchange and the associated services in that area are decommissioned.

For end users living in areas served by NBN fixed-wireless and satellite technologies, current arrangements are that TUSMA is contracting Telstra to continue providing voice services to those who require them. This arrangement commenced on 1 July 2012 and has a 20 year duration. New arrangements in respect of backup power will

¹⁴ Letter from Senator, the Hon Stephen Conroy, the then Minister for Broadband, Communications and the Digital Economy to Mr Chris Chapman, ACMA Chair and CEO, received on 18 June 2013, regarding the *Regulatory enforcement of 'must opt' battery backup model for NBN installations*.

¹⁵ See the *Telecommunications Universal Service Management Agency Act 2012* and the *Telecommunications (Migration Plan Principles) Determination 2011*.

not therefore be required in wireless and satellite coverage areas, unless changes are made as a consequence of future policy directions.

Industry efforts to implement the government's optional backup power supply requirements

Subsequent to government's initial announcement of its optional backup power supply policy, the telecommunications industry and NBN Co negotiated for more than 12 months with a view to having the government's requirements incorporated into NBN Co's wholesale broadband agreement.¹⁶ However, negotiations did not achieve a consensus that would allow the agreement to give full effect to the government's policy, particularly in regard to the provision of clear and comprehensive information by CSPs to their end users.

NBN Co has sought to enable the rollout of optional backup power supply via its wholesale broadband agreement and has recently notified changes to the current wholesale broadband agreement.¹⁷ The changes (which commence on 19 December 2013) enable a CSP to place an order with NBN Co for activation of a service for an end user without a backup power supply.

Under these new arrangements, NBN Co will provide CSPs with informed consent guidelines¹⁸ (including checklists) that can be used to assist the development of a CSP's own individual sign-up processes (including by telephone, online and face-to-face). However, the guidelines do not form part of the wholesale broadband agreement and are not contractually binding. CSPs must make their own decisions about the type and extent of information that should be provided to end users to ensure that end users make a properly informed decision about whether to have a backup power supply or not.

Under the wholesale broadband agreement, a CSP has a transition period of six months from 19 December 2013 to implement the new arrangements. During that transition period where a backup power supply will be provided at the premises, a CSP has a number of options open to it:

- > it can continue to offer services with a backup power supply at the premises
- > if it has implemented processes it considers meets its contractual obligations under the wholesale broadband agreement, it can enable an end user to choose whether or not he or she wishes to receive a backup power supply, as part of the sign up process for services
- > if a CSP provides priority assistance and identifies an end user to NBN Co as a priority assistance end user, deployment of a backup power supply will remain mandatory
- > if a CSP wishes to only provide service to an end user without a backup power supply, NBN Co requires that the CSP:
 - > must advise the end user that it cannot provide a backup power supply service
 - > advise NBN Co that informed consent has been obtained to not providing the backup power supply to that end user
 - > under NBN Co's recommended guidelines, inform the end user that other CSPs are able to offer service with a backup power supply.

¹⁶ <http://www.nbnco.com.au/industry/service-providers/agreements/wba.html>. CSPs enter into a wholesale broadband agreement with NBN Co on an individual basis.

¹⁷ The changes to the wholesale broadband agreement were notified on 23 October 2013.

¹⁸ <http://www.nbnco.com.au/industry/service-providers.html>.

From 20 June 2014, the wholesale broadband agreement will require CSPs to obtain informed consent from end users as to whether or not the end user opts to have a backup power supply, with the exception of priority assistance end users.

This range of options and the applicable timeline are visible on the supply-side to CSPs, but much less so on the consumer (demand) side, suggesting considerable information asymmetry.

Problem

The rollout of the NBN is considered a fundamental government reform which will drive productivity improvements, including through increased competition and improved participation in the digital economy. In replacing the existing fixed-line telephony network, however, there is a need to properly consider the risks to consumers as well as the perceived benefits. This applies particularly to vulnerable consumers who may need additional support to make the transition, on the basis of their higher risk and greater consequences of ill-informed decisions. Ongoing public support for such major reforms is also a key determinant to their delivery – and this can be compromised if important consumer needs are not sufficiently met, potentially leading to more interventionist approaches.

Differences in the way the NBN performs during power outages when compared to the existing fixed-line telephony network is a good example of where consumers need to be adequately informed of the opportunities and risks. Maintenance of fixed-line telephony access during power outages, including access to other services enabled by fixed-line telephony access, will matter more for some consumers than for others. For a subset of consumers it could result in substantial risk to personal wellbeing, through the consequences of what might prove to be an inappropriate choice to opt-out of a backup power supply. In considering whether to opt for battery backup, and how much to rely on it to maintain access to services during power outages, the better-informed consumers are, the lower the risk they will make choices that are wrong for them and expose themselves to avoidable danger.

Under the government's plan for fast Broadband and an Affordable NBN,¹⁹ 11.77 million premises are expected to be connected to the NBN via either FTTN or FTTP network models.

The government has signalled its intention to change the deployment model for backup power supply on relevant NBN fibre services from one of mandatory deployment for all end-user premises to an optional backup power supply policy. Under this, end users with an option to have a backup power supply at the premises must make an informed choice regarding whether to receive or decline a backup power supply as part of their NBN or NBN equivalent network equipment installation. A key element of the government's policy is that CSPs inform end users of the implications of accepting or declining a backup power supply and implement appropriate processes to obtain and record informed consent.

Should the informed consent process be deficient and result in an end user choosing to have an NBN service without a backup power supply without fully understanding the implications of such a choice, serious risks to property, personal wellbeing or even life may arise. The government wishes to reduce such risks to the greatest extent possible and has requested the ACMA to explore regulatory options to support the informed consent process under an optional backup power supply model.

While NBN Co's wholesale broadband agreement partially addresses the government's policy objectives for optional backup power supply, it may not provide a sufficient level of certainty that end-user informed consent to accept or decline a backup power supply will be comprehensively informed and recorded. This is possible because the details of what should be involved in the informed consent and record keeping processes are contained within guidelines which are neither mandatory nor enforceable. The guidelines are provided by NBN Co to CSPs for information purposes only. There is no mechanism currently that provides certainty about the consistency and adequacy of the approaches to be adopted by CSPs for informed

¹⁹ <http://goo.gl/xFPx6X>

consent from end users and for appropriate processes to obtain and record such informed consent.

Without consistent, industry-wide arrangements for the acquisition and retention of informed consent for optional backup power supply, CSPs will have a significant level of discretion as to how they meet contractual obligations. Thus, there is potential for market failure resulting from asymmetric information, behavioural bias and market incentives. The following sections detail these aspects of the problem and identify the risks that may result, as well as the scale and scope of the problem and the associated uncertainties.

Information asymmetry

As outlined in the OBPR Handbook, 'markets may not allocate resources efficiently if one party in a transaction has significantly more information about a good or service than another. Sellers and buyers may have an incentive to conceal information about a good or service in order to obtain a more favourable price or conditions in a transaction.'²⁰

It is very likely that end users, including those at greatest risk, will be insufficiently aware of the differential performance of the existing fixed telephony system versus the NBN during power outages and of the utility and limitations of backup power supply in the event of a power failure. These factors may give rise to information asymmetry that could lead to a sub-optimal outcome, particularly for vulnerable consumers.

Behavioural market failures

Behavioural market failures are often defined as those arising from decisions which individuals make, or are perceived to make, against their own best interests. Drivers of such behaviour include (among others):

- > choice overload – where consumers have to compare too many products and features leading to confusion, random choice, or even failure to make any choice
- > heuristics – where consumers often take short cuts (for example, by following rules of thumb such as what others say/do) when the decision environment is complex
- > framing biases – where consumer choice is influenced by the context in which information is presented. For example the information may be delivered in such a way as to lead the consumer to make a choice that best serves the purposes of the person making the offer.

In this context, end users may be over-optimistic in decision-making when connecting to the NBN²¹ or NBN equivalent network services. Additionally, in the face of complex terms and conditions relating to their NBN purchase, consumers may not make the decision that is in their best interests. These behavioural market failures again might be more prevalent with vulnerable consumers who might have lower technical literacy. Other forms of behavioural bias might also impact on rational consumer choice.

Market Incentives

CSPs may not have the appropriate incentives to provide the necessary information to end users to allow an informed choice regarding the implications of accepting or declining a backup power supply service. This may arise if there are contrary incentives to obtain informed consent relating to backup power supply, such as material costs associated with such information provision, risks to successful sales completion and ongoing support costs.

²⁰ <http://www.finance.gov.au/obpr/proposal/handbook/docs/bpr-handbook.pdf> p.50

²¹ Colmar Brunton research commissioned by ACMA, (unpublished), July 2013.

This is particularly relevant if a market competitive advantage can be realised in minimising this process of gaining informed consent and/or maximising the extent of customer opt-out of backup power supply. Such an advantage could also be increased if there was a first-mover advantage in early implementation of processes to offer optional backup power supply.

Identification of risks

In the absence of regulation, the lack of clarity around the informed consent provisions (and their lack of enforceability) may result in the following:

- > End users do not make the appropriate decision as to whether they have a backup power supply unit installed at their premises. This can result in increased prevalence of either:
 - > end users who would require connection during a power failure having no backup power supply unit installed; or
 - > a backup power supply unit is installed where it is not required.
- > An inappropriate decision to opt-out is particularly problematic, given the high impact possible for vulnerable consumers
- > Where an end user declines installation of a backup power supply unit without fully understanding the implications of doing so and does not have access to an alternative telecommunications service to use in the event of a power failure, they will face an elevated risk to their physical safety and the safety of their property, for example from the inability to call Triple Zero during an emergency or to receive emergency warnings. Some end users may also be unaware of the limitations of the backup power supply and that it is intended to only provide temporary continuity of service in an emergency or natural disaster situation.
- > Some end users are reliant upon devices which utilise the telephony network. For example, it is understood that around 300,000 people may use personal medical alarms and over 1 million people have security alarms - many of these might use the telephony service to seek urgent assistance;
- > Costs to end users to remediate an incorrect decision. The costs involved may include:
 - > time costs and delay costs associated with customers obtaining the outcome they are after; and
 - > costs to industry in installing or removing backup power supply units as appropriate;
- > CSPs who seek to comply with the letter and the spirit of the informed consent contractual requirements might be disadvantaged if competitors provide a low level of information to end users, minimising their costs and maximising the level of opt-out;
- > More broadly, systemic weaknesses in ensuring informed consent and appropriate recording could compromise end-user support for services being provided over a national broadband network. In the absence of an appropriate information provision scheme, it is likely many end users will be unaware that the NBN does not work in a power failure unless it actually happens to them. By potentially damaging the NBN's reputation, inappropriate information provision therefore runs the risk of reducing end-user confidence in the NBN network itself, which may result in sub-optimal utilisation, with a potential incentive for greater regulatory intervention.

It is also recognised that there might be alternative risks if a regulatory or other intervention is unnecessary, for example if CSPs would apply consistent and adequate processes voluntarily in compliance with NBN Co guidelines. These risks might

comprise unnecessary costs in meeting regulatory obligations, without increased end user advantage.

Scale and scope of the problems

The scope of the problem may include all end users in the 11.77 million premises that will be connected to the NBN via either FTTN or FTTP network models – but this is critically dependent on the final technical design of the FTTN network model. Without an adequate framework for informed consent, the relevant end users may make decisions that do not meet their needs and subject them to unnecessary risks or costs.

Of the relevant end users who have an option for a backup power supply unit to be installed in the premises, some specific groups of end users have already been identified and are expected to be considered within the proposed cost and benefit analysis in the details stage. These include end users who:

- > require access to telephony services during a power failure using a corded home telephone;
- > require access to telephony services during a power failure using a suitable cordless home telephone (such as a Digital Enhanced Cordless Telecommunications (DECT) telephone);
- > require access to other services (such as personal medical monitoring services and security alarms) during a power failure; and
- > do not require access to fixed-line telephony or other related services during a power failure.

These groups require relevant information on the operation of their services, customer premises and network equipment in order to make informed decisions and mitigate any unnecessary risks and costs to both CSPs and end users.

In developing this assessment, a number of uncertainties need to be better understood or estimated, including:

- > the likelihood and duration of power failures and the expected time that a backup power supply unit can be operative
- > the extent of usage of cordless handsets (as opposed to fixed corded handsets) amongst end users
- > the expected percentage of end users that are likely to 'opt-out' of installation of a backup power supply
- > any updated information on the FTTN design, with respect to backup power supply
- > the demand for backup power supply to support other services at the premises.

Preliminary estimates of costs and benefits are provided later in this RIS, based on starting propositions as to matters such as the percentage of end users who opt to retain backup power supply unnecessarily and the increased transaction time in provided more comprehensive information to prospective customers.

Information on such uncertainties will be welcomed during the proposed consultation.

Objectives

The government's policy objectives, in the context of the new policy, are to implement an optional backup power supply informed consent process that:

- > Ensures that all end users of NBN or NBN equivalent network services understand that these services may require access to a battery or another backup power supply to continue operating in the event of a mains power outage and that this may only offer continued access to communications for a limited time;
- > Enables end users, who will require a backup power supply to provide continuity of service, to make an active and informed decision to accept or decline a backup power supply service. End users should have sufficient information to make an informed decision regarding a backup power supply service and also understand the implications for dependent services such as medical, security and alarm services;
- > Ensures informed consent is acquired and retained by CSPs in a consistent manner by:
 - > requiring CSPs to implement an informed consent process that gives end users sufficient information during the sales process about whether to accept or decline a backup power supply service based on their individual circumstances; and
 - > requiring CSPs to retain records of communications with end users about the information provided, available options and the final decision on whether a backup power supply service was accepted or declined;²² and
- > If possible, coincides with implementation of optional backup power supply under NBN Co's updated wholesale broadband agreement which takes effect from 19 December 2013.²³

²² Letter from Senator, the Hon, Stephen Conroy, the then Minister for Broadband, Communications and the Digital Economy to Mr Chris Chapman, ACMA Chair and CEO, received on 18 June 2013, regarding the *Regulatory enforcement of 'must opt' battery backup model for NBN installations*.

²³ From 19 December 2013, a CSP with the required processes in place can offer optional backup power supply to an end-user (that is not designated a priority assistance customer) and from 20 June 2014, all CSPs must obtain informed consent from end users as to whether or not the end-user opts to have a backup power supply.

Options that may achieve the objectives

The mandatory deployment of a backup power supply unit to all premises connected by fibre under the FTTP deployment model was an interim solution and the government and NBN Co are committed to implementing optional backup power supply where relevant to the deployment models to be used.

In considering how the objective of ensuring that the informed consent process for the rollout of optional battery backup is sufficiently robust to protect the interests of end users, the ACMA is considering the following three options for the purposes of this RIS for the situations where a backup power supply at a premises is available.

Option 1: The ACMA takes no regulatory action

If the ACMA takes no regulatory action, a CSP will be required under the wholesale broadband agreement to confirm to NBN Co that informed consent has been obtained from the end user and recorded to activate a connection of a service order without a backup power supply. If a CSP fails to indicate to NBN Co that informed consent has been obtained and recorded, a backup power supply is mandatory. With no regulation or industry guideline/code in place, the development and implementation of informed consent and record-keeping processes (including the retention period) is undertaken by individual CSPs on an ad hoc basis. CSPs are able to decide individually about the type and extent of information that should be provided to end users (to enable them to make a properly informed decision about whether to accept or decline a backup power supply).

This represents the least onerous option from a CSP perspective, as each CSP would at its discretion implement a process that best meets its needs and the contractual obligations of the wholesale broadband agreement. This may present the lowest upfront cost option for CSPs, in that each will need to determine what processes are sufficient to fulfil these contractual obligations and other possible end user needs. It also allows for a simple and early implementation, given that the wholesale broadband agreement is expected to be operative in December 2013. However, the information provided by each CSP is expected to vary in terms of its sufficiency and extent.

This option may expose end users to risks, as discussed previously, if the information provided by CSPs is insufficient or records are not retained adequately. These risks include failure to install backup power supply equipment in circumstances where a properly-informed consumer might otherwise have asked for it, or in other cases, the unnecessary installation of backup power supply equipment.

This option may also cause avoidable confusion and impose unnecessary future costs on end users (for example, battery replacement costs beyond the initial warranty period of 2 years). CSPs could also be exposed to liability risks should their individual informed consent practices be found to be deficient.

This option would only be enforceable to the extent that it is provided for in the wholesale broadband agreement.

Option 2: Industry develops a guideline and/or code

This is a self-regulatory option which was identified by industry as a preferred solution during preliminary consultation.²⁴ Industry indicated its preference for development of a guideline which could subsequently be 'upgraded' into an industry code, if a higher level of compliance and enforcement was required.

Guideline

A guideline is typically prepared to provide industry participants with a set of guiding principles on certain matters, based on the collective and agreed views of those involved in its development. Compliance is not mandatory.²⁵ Advice from Communications Alliance—the representative body for the telecommunications industry—is that industry could possibly have a guideline in place three months following a request from the ACMA.

From an industry perspective, the impact of a guideline is seen as an improvement on the first option where the market is allowed to self-regulate, i.e. where individual CSPs can determine their own procedures under the wholesale broadband agreement. Resources would be required for the consultative processes associated with development of an industry guideline, but it would give the benefit of providing CSPs with a reference as to what industry considers appropriate and commercially-achievable practice for this process. As such, it could deliver advantages in terms of industry ownership and simpler updating.

However, an industry guideline may not fully meet the required policy objectives of informed consent for optional backup power supply, given it is developed solely by industry and lacks a direct enforcement mechanism. A guideline may also not provide a sufficient level of certainty about the consistency and sufficiency of information provided to end users, noting the failure of the previous industry negotiations involving NBN Co.

Therefore inconsistency, non-compliance, insufficient information provision or inadequate record-keeping may still arise under this approach.

Industry Code

An alternative under this option is to commence development of a standalone industry code, either from the outset or if an industry guideline was subsequently assessed as inadequate. This may be initiated by a relevant industry body or association,²⁶ or requested by the ACMA.²⁷ Such a code may impose obligations on CSPs as to how they are to inform an end user about a backup power supply service and record and retain records detailing communications with an end user and their decision regarding a backup power supply. The code development process requires industry representatives to reach a consensus on the range of matters to be included in the code. In addition, the ACMA could provide advice as to what its expectations might be to allow it to register such a code. The opportunity to request Authority registration would influence the development of processes closer to the ACMA's expectations.

²⁴ ACMA officers initiated consultation with the industry through a meeting on 19 July 2013 with the relevant working group under the auspices of Communications Alliance (the primary representative industry body for telecommunications in Australia) and a subsequent workshop on 9 August 2013.

²⁵ Compliance with an industry guideline is generally voluntary but may be enforceable by relevant parties through reference to the guideline in a contract or through adoption by a regulator.

<http://www.commsalliance.com.au/Documents/all>.

²⁶ Under section 117 the Act an industry body or association representing a particular section of the telecommunications industry can develop an industry code that applies to that section of the industry.

²⁷ Under section 116 of the Act, the ACMA can request development of an industry code.

Following development of the code and the associated consultation process, the industry body or association may give the code to the ACMA for registration. Once a code is registered, the ACMA can direct a person to comply with the code.²⁸

Communications Alliance has advised that development of a code about optional backup power supply may take six months (excluding any ACMA consideration prior to registration). The commencement of a code development could commence on advice from the ACMA supporting this approach or at some later time, if the industry guideline option was to be used in the first instance. As such, the timeliness of this option would need to be considered.

A registered industry code would provide certainty around the information required, supplemented by enforceability by the ACMA if a CSP has breached the code.

This would be a more onerous option for industry than a non-regulatory approach under option 1 or a guideline, as information requirements and recordkeeping processes would be prescribed and compliance would be compulsory (if the code is registered by the ACMA).

Option 3: The ACMA develops a service provider determination

This is a regulatory option under which the ACMA would make a service provider determination²⁹ to impose obligations on CSPs regarding the development and implementation of appropriate processes to:

- > provide end users with sufficient information during the sales process about whether to accept or decline a backup power supply service (including information regarding the ongoing operation, maintenance, disposal and replacement of batteries and the type of CSP service requested);
- > obtain informed consent from end users; and
- > retain appropriate records of communications with end users and their decision for a prescribed period.

Under the *Telecommunications (Consumer Protection and Service Standards) Act 1999* (the TCPSS Act), CSPs are required to comply with service provider rules.³⁰ In the event of non-compliance with a service provider rule, a range of enforcement options are available to the ACMA, including seeking pecuniary penalties through the courts.³¹

It is estimated that the ACMA could potentially have an instrument in place in March 2014. Similar to a registered industry code, from an industry perspective this is a more onerous option given that it will prescribe information and processes and compliance will be compulsory.

Advantages of this approach may include:

- > greater certainty to the information being provided to end users;

²⁸ Section 121 of the Act gives the ACMA the power to direct compliance with an industry code if it is satisfied that a person has contravened or is contravening the code.

²⁹ Subsection 99(1) of the Act gives the ACMA power to make a written determination setting out the rules that apply to service providers in relation to the supply of specified carriage services. Section 3.13(2) of the *Telecommunications Regulations 2001* enables the ACMA to make a service provider determination setting out rules that apply to carriage service providers in relation to a customer's interests as regards the supply of the services.

³⁰ Section 101 of the Act.

³¹ See sections 102 and 103 of the Act.

- > consistency in approach by CSPs;
- > confidence provided to CSPs about the obligations to be met under the service provider determination; and
- > timeliness of the solution, following the ACMA's decision early in 2014, coupled with the prospect of meshing with end of the transition period under the wholesale broadband agreement.

However, it is also possible that this solution is overly onerous on industry and does not deliver a compensating level of consistency and informed consent, beyond that which could be delivered by other options.

Summary of Options

To assist in considering the relative merits of the options, a brief notional summary of the options is provided at Table 1—as a means of encouraging feedback in the consultation process.

Table 1—Summary of options

	Option 1: Status Quo - Wholesale broadband agreement	Option 2a: Industry guideline	Option 2b: Industry code	Option 3: Service provider determination
Extent to which informed consent at a level acceptable to government is obtained consistently*	May range from low to high, but due to costs of information provision, more likely to be low.	May range from low to high, but due to costs of information provision, more likely to be low.	Likely to be more effective than options 1 and 2a, and may range from medium to high.	Likely to be high, given certainty to obligations and enforceability.
Timeliness of implementation	In place by 19 December 2013, and contractually required from 20 June 2014 after transition period.	Communications Alliance suggest 3 months (best case scenario) - May 2014.	Late 2014 at the earliest (and later if guideline first).	In place by March 2014, proposed to be fully effective at 20 June 2014 after transition period.
Nominal progression of enforceability of scheme				
1 – least enforceable	1	2	3	4
4 – fully enforceable				

* The benefits associated with each option are likely to be linked with the extent to which end users are provided with full information about the usefulness of backup power.

Impact analysis - estimating costs and benefits

In estimating the costs and benefits of the options, the ACMA will be using a framework which is called a Business Cost Calculator. This applies a strong methodology to the quantification of costs, benefits and any cost offsets.

This includes the use of a summary table which seeks to identify the net costs to identified sectors (business, not-for-profit, individuals) under categories of administrative costs, substantive compliance costs and delay costs.

In addition, where a new regulatory approach is not at least cost neutral, cost offsets must be identified which are greater than or equal to the quantification of net costs of the new regulatory approach.

The following discussion seeks to inform the initial development of the Business Cost Calculator, as a basis for the proposed consultation. The preliminary analysis is provided to enable consultation and to provide a focus for feedback.

Option 1: The ACMA takes no regulatory action – the status quo

To assess the impact of a regulatory intervention or other economic change on the public interest, it is necessary to first establish a status quo. The status quo will be that the wholesale broadband agreement will allow CSPs to offer optional battery backup where they affirm to NBN Co that informed consent has been obtained. This is supported by NBN Co providing CSPs with non-binding informed consent guidelines³² (including checklists) that can be used to assist the development of a CSP's own individual sign-up processes, including by telephone, online and face-to-face.

Costs

As outlined in the section identifying the risks resulting from a lack of clarity around informed consent provisions (and their lack of enforceability), the following risks may be present in the absence of regulation:

- > that end users do not make the appropriate decisions as to whether they have a backup power supply unit installed at their premises. This can result in either:
 - > end users who would require connection during a power failure having no backup power supply unit installed; or
 - > a backup power supply unit installed where it is not required;
- > that, where an end user declines installation of a backup power supply unit without fully understanding the implications of doing so and does not have an alternative telecommunications service (for example an available mobile phone) to use in the event of a power failure, they may have elevated risk to their personal safety and the safety of their property. Some end users may also be unaware of the limitations of backup power supply and that it is intended to only provide temporary continuity of service in an emergency or natural disaster situation;
- > that vulnerable subsets of end users might be seriously disadvantaged where they are reliant upon devices which utilise the telephony network. For example, it is understood that around 300,000 persons may use personal medical alarms and many of these might use the telephony service to seek urgent assistance;
- > costs may be incurred by end users to remediate an incorrect decision. The costs involved may include the:

³² <http://www.nbnco.com.au/industry/service-providers.html>.

- > time costs and delay costs associated with customers obtaining the outcome they are seeking; and
- > costs to industry in installing or removing backup power supply units as appropriate.

The costs resulting from a lack of clarity around the information provision are likely to be primarily borne by NBN Co and end users, although it is possible CSPs may suffer some costs associated with poor information provision, such as costs associated with remediation.

The ACMA is seeking data on the level of costs associated with each of these risks in the event of no regulation.

Benefits

In the absence of a regulated information provision scheme, it is possible that there would be varying degrees of information provided by different CSPs. For example, smaller providers may be less likely to be aware of what information end users may need to be provided in order for them to make the appropriate decision about backup power supply deployment.

Given the expected variability of information provided under this option, there would be considerable uncertainty as to whether end users are provided with information required for them to make the appropriate decision as to whether they require backup power supply.

The benefits associated with each option are directly related to the extent to which end users are provided with this information. The wholesale broadband agreement offers the least certainty in information provision requirements of all options. As such, the benefits associated with this option are likely to be the least out of all options.

The ACMA is seeking input on whether an acceptable level of information provision would occur in the absence of regulation.

Option 2: Development of an industry guideline/code

The additional costs and benefits of an industry guideline are difficult to quantify, as compliance with a guideline would be optional. The ACMA has no information currently allowing it to estimate:

- > what the level of compliance might be;
- > whether it may differ from the status quo; or
- > the level and variability of information that might be provided.

While the following discussion only considers the costs and benefits associated with an enforceable industry code, it is postulated that the costs and benefits of an industry guideline may fall somewhere between those to be identified under the wholesale broadband agreement and those identified for a code.

Costs – Industry Code

There are various costs associated with regulation requiring consistent, industry-wide arrangements for the acquisition and retention of informed consent for optional backup power supply. These may include administrative, compliance and delay costs borne by end users, CSPs and NBN Co.

Administrative costs

In this context, administrative costs are defined as those costs that are incurred to demonstrate compliance with the regulation (usually record keeping and reporting costs) or to allow government to administer the regulation.

Such costs may be associated with:

- > CSPs and the relevant industry body in drafting the code, and liaising/negotiating with the ACMA for registration of the code;
- > the establishment, implementation and ongoing delivery of internal processes to monitor compliance, audit internal processes and rectify identified issues with disclosure of information; and
- > the ACMA seeking to investigate a CSP's compliance with the code - requiring the CSP to divert resources to produce documentary evidence of having completed the informed consent process, respond to complaints or implement identified remedial actions. (In addition, the ACMA would have to divert resources to ensure the compliance has been demonstrated).

The ACMA is seeking data on the level of costs that would be borne by CSPs in developing relevant systems and in the event of such investigations occurring.

Compliance costs

In this context, compliance costs are defined as those costs that are incurred in order to directly lead to the regulated outcome, such as purchase and maintenance costs.

Such costs may include:

- > retraining existing staff to include informed consent guidelines in point-of-sale process;
- > recruitment costs associated with hiring additional staff to cope with demand of extended point of sale processes;
- > time taken to revise existing internal business processes and compliance/audit processes;
- > time taken to revise existing terms and conditions;
- > development of, or revision to, internal Customer Relationship Management, sales or information management systems to allow input for optional backup power supply disclosure and informed consent provisions, to store those records and to allow records to be searched in future; and
- > provision of advice (both in the sales process and revision to public documents or communication) about the need to consider the options for backup power supply, including an explanation of consequence.

In the event of the ACMA implements a code, the CSPs are likely to have to undertake these activities.

The ACMA is seeking data on the level of costs that would be borne by CSPs and end users in the event a code was implemented.

The time costs for CSPs and end users of information provision

The ACMA has made a preliminary estimate of one such compliance cost, the time costs for CSPs and end users of information provision.

The cost of this moving to an industry code will be dependent on the complexity of the information provision requirements set out in the code compared to compliance with the current contractual requirement. It will also be dependent on decisions around the technology to be deployed in future NBN connections. For example, technical and commercial choices yet to be made will affect the ratio of FTTP and FTTN connections, and the final details of the FTTN option adopted may impact on the amount of information that affected end users require.

However, for the basis of this RIS, a preliminary estimate has been made that additional information requirements will add two minutes to a sign up process compared to the status quo. Based on the migration of up to 11.77 million services over 6 years (1.96 million per year), and 1.14 million transactions per year for the subsequent 4 years,³³ ACMA staff have estimated that the additional cost to industry over this period could be in the order of \$17.5 million over the ten years.³⁴

Based on the same assumptions, and using the value of time estimates outlined, the additional cost to end users would be between \$3.6 million and \$7.3 million over the ten year period.

In total, the costs associated with the industry code option would be range between \$21.1 million and \$24.8 million over the ten year period.

Delay costs

In this context, delay costs are defined as those costs that are incurred through having to complete documentation, or wait for an approval. For example, if a new licensing obligation was imposed delaying a business from commencing operations, it could suffer economic loss.

Under this option, delay costs could result from:

- > lost opportunities due to:
 - > increased time taken to complete a sales process causing a potential customer to not proceed in obtaining service;
 - > staff being unable to take other calls and those potential customers electing not to wait for an available sales representative;
 - > additional sales calls required due to disconnection of previous sales process (for example, customer may feel they need to confirm details with an alarm provider prior to agreeing to a service and require a second sales call);
 - > sales lost due to customers becoming uncertain about what they require;
 - > sales lost due to CSPs not offering services that meet the end user's needs;
- > a smaller potential customer base, where a CSP chooses to only offer one option about backup power supply capability. That is, either provision of backup power supply only, or not at all;

At this options-stage RIS, it is not clear to the ACMA:

- > how material such delay costs would be in the event the ACMA accepted a code-based approach; and
- > whether delay costs would be greater than those experienced in the absence of a code being implemented.

³³ Based on the 2011-12 Communications Report on connections for the major 4 CSPs, 1.144 million connections were undertaken.

³⁴ Forecasts included in this document assume a discount rate of 10 per cent, and an inflation rate over the period of 2.5 per cent. Estimates are in real present value terms. The cost to industry of handling customers is likely to reflect salary and on-costs, and fixed costs associated with facilities required to support the customer service arrangements. The value of time is assumed to be equal to the average hourly wage for 'call or contact centre information clerks' (\$27.60 in 2012). It is assumed that on-costs and fixed costs per employee result in an average hourly cost to firms of 50 percent higher than the average hourly wage. The average hourly cost is therefore \$41.40.

The 'value of time' of customers is assumed to be between 25 per cent to 50 per cent of average hourly wages. This equates to a range of \$8.68 (lower bound) to \$17.35 (upper bound) in 2012. In each subsequent year these rates are increased at the rate of inflation. The value of time is a common input into cost/benefit modelling, including for example in relation to studies assessing proposals to reduce travel time by improving transportation. The Australian Bureau of Statistics states that the average hourly wage is \$34.70. It is conservative to assume that the average value of time of customers is less than the average hourly wage. Arguably it may be as high as the average hourly wage.

The ACMA is seeking data on the additional delay costs and consequential impacts, when compared to an absence of regulation, that would be borne by CSPs and end users in the event a code was implemented.

Benefits – Industry Code

The benefits of a code-based information provision scheme may include reducing the:

- > rate of inappropriate backup power supply installation;
- > economic costs associated with the risk to personal safety or property; and
- > costs of remediating wrong decisions.

Reduction in the rate of inappropriate backup power supply installation

This section will consider one area of potential benefit of appropriate information provision. As outlined above, if end users are not provided with the appropriate information about whether they require a backup power supply unit, it is likely that units will be deployed where they are not required.

For planning purposes, NBN Co assumed that 50 per cent of fibre end users with new installations would elect not to have a backup power supply installed when able to nominate whether or not they want NBN Co to provide a backup power supply.³⁵ However, initial feedback from industry meetings suggests that, given the choice, end user take-up of backup power supply units may in fact be much lower, with some suggestions being as low as 10 per cent.³⁶

As the delivery model for NBN services is now being reviewed to reflect government policy, there is no current certainty as to whether a backup power supply at the end-user premises will be an option for customers who will receive FTTN services. This is because backup power supply could be located in the node, at the end-user premises, or in both locations under a FTTN model. Therefore, it is not yet possible to estimate with confidence how many backup power supply units will be supplied in the future.

If it is assumed that only those that have a FTTP connection have the option of having a backup power supply unit installed, this reduces the occurrences where there is potential for incorrect decisions being made by end users. According to the current government policy and subject to current reviews, 22 per cent of premises will be FTTP (approximately 2.6 million premises). Consistent with NBN Co.'s planning assumption, we have assumed that 50 per cent will have a backup power supply installed.

It is likely that a percentage of these do not require one and, in the event that they were fully informed of its usefulness, would not have it installed. For the purposes of these calculations, we assumed that 5 per cent of the premises have a backup power supply unit installed where it is not required (65,000 premises).

It is estimated that the unit itself costs approximately \$80, and requires two hours of installation at \$55.65 an hour ('ICT and telecommunications technicians' average hourly wage is \$37.10 in 2012,³⁷ plus 50 per cent for on-costs and fixed costs per employee). This brings the cost to \$191.30 per unit.

Therefore, based on these assumptions, one of the benefits associated with the improvement in the information provision may be \$12.4 million ($\$191.30 \times 65,000$) over the rollout period, in that unnecessary installation costs are forgone.

In the event that a backup power supply at the premises is also a design option under the FTTN model, up to 93 per cent of premises are of relevance where backup power supply is either optional or required to retain functionality for a limited period, the corresponding benefit is estimated at \$52.4 million over the rollout period.

³⁵ 2012-15 Corporate Plan, NBN Co, page 12, 6 August 2012.

³⁶ ACMA and Communications Alliance industry workshop held on 9 August 2012.

³⁷ <http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6306.0May%202012?OpenDocument>

The ACMA is seeking data on the appropriateness of the assumptions used in this section, particularly in any predicted reduction in the number of inappropriately installed backup power units between the status quo and code-based regulation.

Reduction in the economic costs associated with the risk to safety and life

One of the key benefits of an informed consent scheme is the reduction in the risk to end users personal safety and the safety of their property.

As outlined above, where an end user declines installation of a backup power supply unit without fully understanding the implications of doing so and does not have an alternative telecommunications service (for example an available mobile phone) to use in the event of a power failure, they may have elevated risk to their personal safety and the safety of their property.

It is likely that some people, particularly vulnerable end users or those at an elevated risk of illness or death, would be more likely to choose to have a backup power supply unit installed than the general public. If an acceptable quality of informed consent is not required, it may result in increased numbers of these people not having a backup power supply unit installed.

This risk is exacerbated when consideration is given to the incidence of personal emergency alarms in the community (estimated to 300,000) which are dependent on telephony access. In the instance of inadequate information being provided to such end users, poor decisions might be taken with adverse consequences.

Estimating the reduction in the economic costs associated with this risk to personal safety and property is complicated by the current absence of relevant data on both the likelihood and consequential cost bases, but we note that this would be expected to be material.

The ACMA is seeking data on the extent to which code-based regulation would result in the reduction in the economic costs associated with risk to end user's personal safety and the safety of their property. Information that may be helpful in estimating this benefit includes:

- > the number of people that would otherwise have backup power supply installed but do not as a result of the poor information provision;
- > the proportion of people that would depend solely on landlines during a power failure ;
- > the average number and duration of power failures.

Reduction in the costs of remediating wrong decisions

There may be other benefits associated with requiring an acceptable quality of informed consent, including a reduction in the costs associated with remediating inappropriate decisions. The costs associated with remediating inappropriate decisions are likely to be related to the rate of inappropriate decisions. That is, units installed where they are not required, and units not installed where they are required.

As outlined above, the costs of remediating wrong decisions include:

- > time costs and delay costs associated with customers obtaining the outcome they are seeking; and
- > costs to industry in installing or removing backup power supply units as appropriate.

It is not clear what numbers of end users would actually remediate a wrong decision, noting the starting assumption above of 5 per cent of premises having a backup power supply where this was not required. It is possible that those people who originally did not have a backup power unit installed but decided at a later date that they required one, would be more likely to go to the trouble of obtaining a unit.

The ACMA is seeking data on the likely reduction in the numbers of people that would have to remediate wrong decisions in the event the ACMA implemented code-based regulation.

Option 3: Development of a service provider determination

Costs

There are various costs associated with regulation requiring consistent, industry-wide arrangements for the acquisition and retention of informed consent for optional backup power supply. These may include administrative, compliance and delay costs borne by end users, CSPs and NBN Co.

In the following preliminary analysis, it is presumed that the making of a service provider determination will increase the extent of the information required to be provided and the record keeping process. This is largely based on the ACMA's experience that the process of development and making of a registered code is generally more of a compromise, where the ACMA and the body developing a code tend to negotiate a mutually acceptable outcome. A nominal increase of 20 per cent has been made to some of the relevant preliminary estimates, as a basis for feedback within the proposed consultation. The detailed arguments leading to the base estimates provided for Option 2 are not repeated here.

Administrative costs

It is likely that the administrative costs associated with a service provider determination would be greater than for a registered code. The increased enforceability and the impost of the associated record-keeping rules would likely result in an increased amount of resources devoted to adherence to the regulation.

The ACMA is seeking data on the level of administrative costs that would be borne by CSPs in the event that the ACMA imposes a service provider determination.

Compliance costs

In the event that the ACMA implements a SPD, the CSPs will have to undertake some compliance activities to ensure adherence with the requirements, as has been identified under a registered code.

The ACMA is seeking data on the level of costs that would be borne by CSPs and end users in the event a service provider determination was implemented.

The time costs for CSPs and end users of information provision

The ACMA has estimated one such compliance cost, the time costs for CSPs and end users of information provision required under a service provider determination.

A service provider determination could potentially result in an increase in cost to industry similar to that estimated for an industry code. However, it is also possible that the requirements of a service provider determination would result in an additional amount of time required to inform the customers of the backup power supply policy.

If the assumption is made that compliance with a service provider determination would be 20 per cent more onerous than compliance with an industry code, the ACMA estimates that the additional cost to industry of a service provider determination would be \$20.9 million over the ten years.

Based on the same assumptions, and using the value of time estimates outline above, the additional cost to end users would be between \$4.4 million and \$8.8 million over the ten year period.

In total, the costs associated with the service provider determination option would be range between \$25.3 million and \$29.7 million over the ten year period.

Delay costs

On the same basis as outlined above, the impacts on a CSP of any delay occasioned by additional obligations could also be expected to increase under a service provider determination which might be more onerous.

The ACMA is seeking data on the additional delay costs when compared to an absence of regulation that would be borne by CSPs, end users and NBN Co in the event a service provider determination was implemented.

Benefits

The benefits of having a service provider determination may be higher than the benefits associated with an industry code, as the information provided is likely to be more substantial and enforceable.

As outlined above, the benefits of code-based information provision scheme may include reducing the:

- > rate of inappropriate backup power supply installation;
- > economic costs associated with the risk to life or property; and
- > costs of remediating wrong decisions.

Reduction in the rate of inappropriate backup power supply installation

The analysis undertaken above suggests that a 5 per cent reduction in backup power supply unit installed where it is not required resulted in a benefit of between \$12.4 million and \$52.4 million, depending on the network design. It is reasonable to assume that the information provision under a service provider determination will be more effective than it would be under registered code approach. As such, it is likely that the benefit associated with this issue would be greater for a service provider determination than for a code. At this stage, the preliminary estimate simply argues the benefits would be higher, but does not estimate by how much.

The ACMA is seeking data on the appropriateness of the assumptions underpinning the analysis in this section.

Reduction in the economic costs associated with the risk to life

As above, it is likely that the reduction in the economic costs associated with risk to personal safety and property would be greater under a service provider determination than it would be under code-based regulation. However, it is not clear to what extent they would be greater.

The ACMA is seeking stakeholder input on the extent to which a service provider determination would result in the reduction in the economic costs associated with risk to end-user's personal safety and the safety of their property. Information that may be helpful in estimating this benefit includes:

- > the number of people that would otherwise have backup power supply installed that do not as a result of the poor information provision;
- > proportion of people that depend solely on landlines during a power failure; and
- > average number and duration of power failures.

Reduction in the costs of remediating wrong decisions

Given that there is likely to be reduced number of wrong decisions under a service provider determination than under a registered code, it is likely that the costs of remediating wrong decisions would also be lower. Again, it is not clear what number of end users would actually make a wrong decision under a service provider determination, and how many would undertake to remediate a wrong decision.

The ACMA is seeking data on the likely reduction in the number of end users that would seek to remediate wrong decisions in the event the ACMA implements a service provider determination.

Summary of expected costs/benefits and relevant data requirements for each option

The two tables below set out the framework for the data that might usefully be considered in the ACMA's determination of the costs and benefits of each option for the purpose of the details-stage RIS.

For the purposes of this options-stage RIS, where assumptions and estimates have been made, the tables have been populated accordingly as a basis for consultation.

A table has not been included for Option 1, on the basis that this is a status quo option, but this can be done in the details-stage RIS if considered useful.

Table 2—Option 2:Development of an industry guideline/code

Sector	NBN	CSPs	Individuals / End users	Total by cost category
Cost/benefit categories				
Costs				
Administrative Costs		Seeking data		
Substantive Compliance Costs		\$17.4m over 10 years for longer sign up process. Seeking feedback on assumptions and data for other compliance costs.	\$3.6m-\$7.3m over 10 years for longer sign up process. Seeking feedback on assumptions.	
Delay Costs		Seeking data.	Seeking data.	
Benefits				
Reduction in rate of inappropriate installation	\$12.4m - \$52.4m. Seeking feedback on assumptions.			
Reduction in economic costs of risk to life			Seeking data.	
Reduction in costs of remediating wrong installation decisions	Seeking data.	Seeking data.	Seeking data.	

Table 3—Option 3: Development of a service provider determination

Sector	NBN	CSPs	Individuals / End users	Total by cost category
Cost/benefit categories				
Costs				
Administrative Costs		Seeking data.		
Substantive Compliance Costs		\$20.9m over 10 years for longer sign up process. Seeking feedback on assumptions and data for other compliance costs.	\$4.4m-\$8.8m over 10 years for longer sign up process. Seeking feedback on assumptions.	
Delay Costs		Seeking data.	Seeking data.	
Benefits				
Reduction in rate of inappropriate installation	>\$12.4m-\$52.4m. Seeking feedback on assumptions.			
Reduction in economic costs of risk to life			Seeking data.	
Reduction in costs of remediating wrong installation decisions	Seeking data.	Seeking data.	Seeking data.	

Consultation

The ACMA proposes to consult in developing the details-stage RIS through issuing a media release and posting on the ACMA website copies of a consultation paper, this options-stage RIS and a draft service provider determination.

In addition, copies of this consultation package will be sent to the ACMA's Consumer Consultation Forum and the working group established by the industry (Communications Alliance Battery Backup Working Group) and other known stakeholders. The consultation period is expected to be for approximately four weeks.

Conclusion

The conclusion as the recommended option will be dependent on the outcomes of the consultation, based on which option is expected to deliver the maximum net benefit to the community. In addition the net compliance costs, incorporating if necessary compliance offsets, will be examined by the ACMA.

Implementation

The implementation details and any review of the preferred option will be developed on the basis of the recommended option, following consultation.

Regulatory cost offsets

The new evaluation procedures being implemented by the Office of Best Practice Regulation (OBPR) require a strong and transparent methodology to the quantification of costs, benefits and any cost offsets.

Advice for the OBPR is that all new regulations should have a cost neutral impact on business, not-for-profit organisations and individuals. As such, any cost offsets identified must be greater than or equal to the quantification of costs of the new regulation.

The cost offsets are not limited to reductions in regulation, but can be in the form of efficiency benefits or reductions in red tape. Such offsets will be subject to a range of controls and criteria to ensure they can be validly claimed.

Given that the regulatory cost attaching to the options presented in this options-stage RIS vary substantially and that the ACMA requires better data from the consultation process to allow for a more accurate cost estimate, it is premature for the ACMA to identify how any regulatory impost might be offset by reductions in other compliance costs at this stage. The opportunities to identify such reductions in compliance costs, if necessary, will be examined in the preparation of the details-stage RIS.

However, it is noted that the change from a mandatory rollout of battery backup to an optional model is expected to result in a significant cost saving in terms of factors such as the initial provisioning, the ongoing cost to end users for battery replacement and the environmental issues associated with improper disposal of spent batteries. Relevant information will be sought as part of the proposed

consultation, consistent with the framework provided for information at Table 4. Based on a commercial-in-confidence assessment of the savings to end users for battery replacement (at confidential attachment), it is anticipated that the net compliance costs will be offset fully.

Given information from some parties may be commercial-in-confidence, the ACMA may need to make its own estimates. The ACMA expects to provide further information on proposed regulatory cost offsets based on additional data obtained during the consultation in the details-stage RIS.

Table 4— Cost offset estimate table – Annual cost offset

	Agency	Within portfolio	Outside portfolio	Total
Business				
Not-for-profit				
Individuals				
Total				

Proposal is cost neutral? yes no

Proposal is deregulatory yes no

Balance of cost offsets \$ _____