

ESG




TISN

FOR CRITICAL INFRASTRUCTURE
RESILIENCE


Energy Sector Group

Guide for Organisational Human Influenza Pandemic Planning

An Industry Planning Support Document



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FOREWORD TO CEOs

It has been historically demonstrated that effective business continuity planning is the cornerstone of an organisation's ability to respond to disruptions and increase organisational resilience. While Australia's recent experience of the H1N1 2009 pandemic event was one of moderate severity, future pandemic events continue to have the potential for devastating effects on our economy and society as a whole. It is not possible to predict when the next pandemic will occur, how severe it will be or how long it will last. Based on information from previous pandemics, it is anticipated that a pandemic could last from seven-to-ten months in Australia. However, the social and economic impacts have the potential to last much longer.

There continues to be an expectation by regulators, customers and suppliers that energy organisations will operate to near-normal capacity in the event of a pandemic. As with other operational expectations, these customers and stakeholders will look to CEOs to take ultimate responsibility for their organisation's influenza pandemic planning and preparedness.

Since its development in 2007, we have reviewed this guide to incorporate the lessons learnt from the energy sector's experiences in responding to pandemic H1N1 2009 and contains updated information and case studies from the energy industry. One of the most significant and important changes in this guide is the recommended shift from prescriptive, phase-based pandemic plans to flexible, risk assessment planning for pandemic events. Risk based planning allows CEOs to activate components of their business continuity plan in response to an assessment of their operating capabilities, ensuring an appropriate response associated with the severity of the disease. This guide will assist you to incorporate this type of planning into your existing business continuity frameworks.

As with the original version, comprehensive resource management spreadsheets and templates are provided in the second section of this guide and are available electronically on the Attorney-General's Department's Trusted Information Sharing Network for Critical Infrastructure Resilience (TISN) website. These templates can assist you in identifying how your organisation will respond to a pandemic event using a risk based plan and the major functions and key personnel in operational areas. The templates can also assist in enabling you to implement appropriate protection strategies and priorities for your organisation and its supply chains. In particular, these tools highlight interdependencies, which can be the weakest link in plans as they are often beyond your control.

This guide has been updated under the auspices of the TISN's Energy Sector Group (ESG) and was compiled through the efforts of the Energy Pandemic Influenza Community of Interest and in consultation with the Department of Prime Minister and Cabinet, the Department of Health and Ageing, and the TISN Pandemic Influenza Community of Interest.

We would like to thank all those who have contributed their expertise and provided their support in developing this guide for the benefit of the energy industry.

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INTRODUCTION

The production and supply of energy is a vital component of our economy and society overall. Recent pandemic events have reinforced the need for organisations to invest in effective pandemic planning. This is of particular importance to the energy sector as many energy organisations are essential service providers, requiring continuous business operations and maintenance of systems and infrastructure.

Energy organisations require an effective pandemic plan that will help to ensure business continuity, provide a safe work environment for staff and enhance organisational resilience during and after a pandemic event. This guide is designed to be used as a conceptual tool that can assist or enhance pandemic planning within your organisation's existing business continuity framework.

The guide consists of three sections:

- Section 1: pandemic planning and business continuity information;
- Section 2: templates to assist you in compiling a robust pandemic plan; and
- Section 3: formatted spreadsheets to assist with business analysis. These are currently available on the TISN website at www.tisn.gov.au/www/tisn/tisn.nsf/Page/Publications_Energypublications

Section 1 provides information on issues specific to pandemic planning and business continuity awareness. Some of these topics may be covered in your organisation's existing business continuity plans but may need to be reconsidered from a pandemic event perspective.

The templates provided in Section 2 are designed to be modified where required to fit the needs of individual organisations. The information drawn out by these templates can assist you in analysing your organisation's critical functions and creating an effective pandemic plan. The templates are also provided electronically in the publications section of the TISN website.

The spreadsheets that form Section 3 include two excel work books; one for use by the electricity sector and the other for use by the liquid fuels and gas sectors. Each workbook contains spreadsheets that can assist organisations to assess the potential impacts of a pandemic on specific business units within their sector.

The appendices contain a resource list information on Australian Pandemic Phases.

SECTION 1 – PANDEMIC PLANNING AND BUSINESS CONTINUITY INFORMATION

Planning for a Pandemic

Australian Prevention and Response Strategies

The Department of Prime Minister and Cabinet (PM&C) is responsible for developing Australia's *National Action Plan for Human Influenza Pandemic* (NAP)¹. The NAP outlines how Commonwealth, State, Territory and Local governments will work together to protect Australia against the threat of an influenza pandemic and support the Australian community.

Supporting the NAP are plans that cover, in more detail, how individual governments and agencies are working together to prepare for, respond to and recover from an influenza pandemic. They are available at the flu pandemic website (www.flupandemic.gov.au) and other relevant Commonwealth, State and Territory agency websites.

One of these supporting plans is the *Pandemic Planning in the Workplace*² document, also produced by PM&C, aims to assist employers and employees to consider some of the possible impacts of a human influenza pandemic on their workplace and to prepare in advance.

The Department of Health and Ageing's (DoHA) *Australian Health Management Plan for Pandemic Influenza*³, (AHMPPI) outlines the measures that the health sector will consider in response to an influenza pandemic and provides an overarching framework for preparedness and response activities within the health sector.

The www.flupandemic.gov.au website also contains pandemic information for business and the workplace as well as a range of Guidelines and Fact Sheets on business continuity during a pandemic⁴.

These are some of the many publications available to business on the appropriate prevention and response mechanisms required in developing a pandemic response plan, see **Appendix A** for a list of sources.

Risk-based Pandemic Planning

Experiences by organisations during the 2009 H1N1 Influenza outbreak showed that pandemic plans based on a severe pandemic event, with prescriptive actions triggered by changes in pandemic alert phases are ineffective for a moderate level pandemic. Based on these experiences, organisations may wish to enhance the flexibility of their pandemic plans by using risk-based assessments.

A risk assessment-based approach can allow management to activate components of their business continuity plan in response to their organisation's circumstances as a situation evolves. It also allows organisations to make changes to their response options within a pandemic phase, enabling the most appropriate business response.

¹ DPM&C, *The National Action Plan for Human Influenza Pandemic*, Apr 2010, <http://www.dpmc.gov.au/PUBLICATIONS/pandemic/index.cfm>, accessed 2010

² DPM&C, *Pandemic Planning in the Workplace*, May 2009, http://www.dpmc.gov.au/publications/pandemic/docs/Pandemic_Planning_in_the_Workplace.pdf, accessed Jan 2010

³ DoHA, *The Australian Health Management Plan for Pandemic Influenza*, 2008, <http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/ahmppi08.ht> accessed Jan 2010

⁴ DoHA, Guidelines and fact sheets, 2009, www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/resources-1, accessed Jan 2010

Figure 1 provides an example of a risk assessment matrix that can be used to trigger components of a pandemic plan.

Figure 1. Pandemic Response Risk Assessment Matrix

*

Business Likelihood Descriptors	Pandemic Level Crisis	Severe	Fully Activate	Fully Activate	Fully Activate	Fully Activate	Fully Activate
	Uncontainable Emergency	Moderate	Enhance	Enhance	Enhance	Enhance	Fully Activate
	Containable Emergency	Mild	Engage	Engage	Engage	Enhance	Fully Activate
Routine			Routine	Engage	Enhance	Fully Activate	
	Workforce Illness attack / absence rate		Mild			Moderate	Severe
			5 - 15 %			15 - 35%	> 35%
			Business Impact Descriptors				

*Based on 'New Severity Matrix' developed by D.Baumken - Hydro One Networks, S.Brindley- IESO and G.Di Giambattista - Ontario Power Generation, 2009.

In the example provided at Figure 1, *Routine* refers to a business as usual situation, *Engage* refers to a low level developing problem requiring monitoring and preparations outside the health system, *Enhance* refers to a developing problem with pandemic potential requiring further preparations and initial actions and *Fully Activate* refers to a problem requiring a full enactment of a planned organisational response to maintain critical functions.

Table 11 in Section 2 provides an example of how an organisation can map out their actions in response to the severity levels of the Pandemic Response Risk Assessment matrix in Figure 1.

Pandemic Phases

Australian pandemic phases are outlined on DoHA's flu pandemic website, www.flupandemic.gov.au. When monitoring national phases, organisations should refer to media reports and the DoHA website. DoHA's communication strategy regarding changes to pandemic phase levels is also available on their website⁵. Monitoring of *global* phases can be conducted by accessing the World Health Organisation's phase assessments on their website at http://www.who.int/csr/disease/avian_influenza/phase/en/index.html

Due to the relatively moderate nature of the 2009 H1N1 virus the Australian government introduced an additional pandemic phase called *PROTECT* (see Appendix D). The *PROTECT* phase recognised that the infection with pandemic (H1N1) influenza 2009 was mild in most people, severe in some but moderate overall. The *PROTECT* phase sought to reduce community disruption caused by disease control interventions, while enabling the best protection for those people more vulnerable to severe consequences.

Do you have access to reputable sources of information to verify or refute media reporting on a pandemic?

⁵ DoHA, Pandemic Communication Strategy 2006, <http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf/Content/comms-strat.htm>, accessed Jan 2010

Organisations should remain aware of pandemic phase changes nationally and internationally and consider the potential impacts of each phase change on their organisation.

Further information on Australian Pandemic Phases is available at Appendix D. Please note that all documents created prior to 2009 will not refer to the *PROTECT* phase.

Organising for a Pandemic

Pandemic Management: Organisational Roles and Responsibilities (Template 1)

In light of recent pandemic events, and based on good practices within the energy sector, your organisation may wish to consider appointing a dedicated Pandemic Manager responsible for developing, reviewing and implementing your organisation's pandemic plan. A backup staff member is also advisable to ensure the smooth implementation of a planned response (see Template 1 in Section 2).

The Pandemic Manager's role can involve working with senior management to identify the assumptions and expectations that your organisation's response plan will be based on (see section below). The Pandemic Manager may also be responsible for liaising with other members of the organisation to identify critical requirements and to develop a communication strategy to formulate, discuss and advise on expectations during a pandemic event. The Pandemic Manager may also be responsible for liaising with external interest groups such as the EIAAG and its sub groups, the wider TISN community including the Pandemic Influenza Community of Interest (see Critical Infrastructure Resilience Frameworks, page 16) and other industry-based associations.

Assumptions and Expectations (Template 4)

A key component in your organisation's pandemic planning process is to clearly articulate the assumptions and expectations of your organisation's operating environment during a pandemic event.

Assumptions and expectations should reflect a realistic assessment of the capacity of your organisation to safely and effectively operate during mild to severe pandemic events. You will also need to consider the expected capabilities of interdependent organisations and sectors. Some examples of common (and untested) assumptions are listed in Box 1 below.

Box 1: Assumptions & Expectations of the Energy Sector and Interdependent Sectors

Assumptions and Expectations: Energy Sector

- That energy organisations will continue to operate in the event of a pandemic.
- That stakeholders should be prepared for potential disruptions and delays in the supply of their energy requirements.
- That delays may occur in non-essential maintenance, reconnections and restoration of supply.

Assumptions and Expectations: Interdependent Sectors

- That water, communications and emergency services will be near-normal with minimum impact on your business
- That interdependent sectors will be stressed and normal contingencies may not be addressed for longer periods than normally experienced or accepted.
- That businesses will minimise their energy use where possible and consider how to best maintain continuity of supply to their consumers, with normal power conditions, with the help of back-up generation supplies or with no power.
- That businesses have considered the potential impact of an additional hazard occurring simultaneously with the pandemic event.

If your organisation has key stakeholders overseas, your assumptions and expectations may need to include planning for pandemic spread and phase changes abroad and assessing the possible impacts of this on your business critical operations.

The relevance of the factors that influence an organisation's expectations can change over time. As a consequence, regular reviews and tests should be implemented as part of the monitoring and improvement process for the overall pandemic plan.

Workplace Response Measures

Initial Response

Employers can minimise the spread of influenza in the workplace by encouraging staff with flu-like-symptoms to remain away from work till symptoms have passed, and by promoting simple hygiene measures in the workplace.

Here are five simple ways to prevent the spread of any form of influenza:

1. Cover your mouth and nose when you sneeze or cough

The flu virus can travel through the air when a person coughs or sneezes. When you cough or sneeze you should:

- turn away from other people;
- cover your mouth and nose with a tissue or your sleeve;
- use disposable tissues rather than a handkerchief (which could store the virus for up to 12 hours);
- put used tissues into the nearest bin, rather than a pocket or handbag; and
- wash your hands, or use an alcohol hand rub, as soon as possible afterwards.

2. Wash your hands

Washing your hands regularly - even when they aren't visibly dirty - with soap and water, or with an alcohol-based product that does not require water, is effective in killing the flu virus. A variety of alcohol-based gels, rinses or foams can be found at supermarkets and pharmacies.

Always wash your hands:

- after coughing, sneezing or blowing your nose;
- after being in contact with someone who has a cold or flu;
- before touching your eyes, nose or mouth;
- before preparing food and eating; and
- after you've been to the toilet.

3. Don't share personal items

The flu virus can spread when someone touches an object that has the virus on it and then touches his or her eyes, nose or mouth. It is important to not share eating and drinking utensils, food or drinks.

4. Clean surfaces

Flu viruses can live on hard surfaces for up to 48 hours. It is important to regularly clean surfaces such as tables, benches, fridge doors, lift buttons and door handles with normal household detergents.

5. Avoid close contact with others

Keeping your distance by standing or sitting back at least one meter from other people will help reduce the chances of spreading the flu virus.

Organisations should consider how workplaces can be set up to avoid close contact and large gatherings of people.

PPE and Antivirals (Templates 9 and 10)

Additional response strategies such as Personal Protective Equipment (PPE) and Anti-viral medication should be prioritised for staff working in high risk environments and /or in areas identified as critical to business functions. An environment is considered high risk if regular face to face contact with potentially sick persons (ie the general public) is required.

It is important to note that anti-virals and PPE are limited resources and form only one pillar of protection in response strategies to pandemic influenza. Access to these items needs to be considered well before a pandemic event as suppliers of protective materials and anti-viral medication have advised that high demand and some panic buying will exhaust stocks should a pandemic alert level be upgraded.

Investing in PPE

The most commonly used PPE are surgical face masks. Different masks are available that can provide protection for a healthy individual who can be expected to be exposed to infectious people; or to prevent an infectious person spreading the infection.

Other PPE that may be required during a pandemic are goggles, gowns and gloves. You will need to choose the appropriate level of cover for your organisation.

If you are unsure if and when PPE may be required in your organisation, the following points may be considered:

The proximity of contact required between staff and clients: can a one metre distance be maintained?

Can any additional appropriate barriers be put in place to decrease the risk of exposure e.g:

- reorganise work spaces to maintain a one metre distance between people;
- avoid creating situations where crowding of people could occur;
- placing screens between customers and staff (if applicable); and
- re-organise work teams to minimise face to face contact i.e maintenance crews

Where pandemic planning has identified value in investing in PPE in your organisation, several issues need to be considered, including:

- training staff on how to use and dispose of PPE correctly;
- timely sourcing and supply of PPE (affected by global supply and demand trends);

-
- the stockpiling of PPE (including amount required and shelf-life); and
 - investing in PPE for family members of essential staff.

PPE is only effective if accompanied with appropriate hand hygiene.

Investing in Anti-viral Medication:

Antiviral medication can only be prescribed by a medical practitioner.

Organisations should investigate the latest information from relevant state/territory governments to inform their decision making process regarding organisational stockpiling of anti-viral medication. Access to anti-viral medications should be also be considered by each organisation within its pandemic plan (see Template 9).

The National Medical Stockpile (NMS) is a national strategic reserve of medicines and equipment for health workers. The energy industry should therefore continue to develop plans based on the premise that no energy sector workers will be given access to NMS antivirals. State and Territory stockpiles of antivirals are smaller than the quantity held in the NMS. Their stockpile will provide for a short-term response in the initial stages of a human influenza pandemic.

With these points in mind, individual organisations will need to make their own assessment, on the best information available, of whether or not they will stockpile anti-viral medications for their own use. In other words, energy organisations should not assume or rely on Government to provide anti-viral medication. Further advice on arrangements in relation to the sourcing and stockpiling of anti-virals should be sourced from relevant jurisdictional agencies (refer **Appendix A**).

If an organisation chooses to invest in PPE and antivirals it is important to have appropriate plans and guidelines in place for storage and usage.

Organisational Response Measures

Business Critical Functions and Staff (Template 3)

It is good practice for organisations to agree on critical operating and staffing requirements as part of the pandemic planning process. These operating parameters, combined with the organisation's agreed assumptions and expectations, will assist your organisation to form an effective pandemic response plan that ensures the continuation of business critical operations during a pandemic event (see Template 3 in Section 2). You may wish to consider the following with your Pandemic Manager:

- What are the core functions of your operations that need to continue during a pandemic event of any severity?
- What are the essential elements that enable these core functions to operate? (e.g. on-board engineering, maintenance, phones and IT, cleaning, control functions, fuel for vehicles etc)
- Who are the core people required to keep the essential parts of the business running and what skills do they possess?
- Are there sufficient back-ups for people and skills if there is a high level of absence?
- Are there other resources (e.g. volunteers, retirees, etc) which could be drawn on if necessary?
- Do you have adequate infrastructure to support changes in business operation (e.g. computer networks or internet presence)?

Does your organisation have the capability to support increased 'work from home' arrangements?

-
- Are your core staff aware of their responsibilities and how they will be managed in the event of a pandemic?

Note: some staffing contracts may need to be revised in consideration of new tasks and training required (e.g. cleaners may have to remove biohazard materials etc).

Additionally Tables 2 and 3 in Section 2 demonstrate how the 'criticality' spreadsheets available on the TISN website can be used by your organisation to assist in this analysis. These workbooks may assist you in completing a more detailed 'impact assessment' on each business unit.

Interdependencies (Templates 5-7)

Interdependencies can include major service suppliers and customers of the organisation. They may also include other elements of the energy supply chain, such as the distribution chain, ports, storage facilities, and airports. Identifying interdependencies may include consideration of the resources and inputs required by organisations further up the supply chain that could have a considerable impact on your operations.

Templates 5-7 in Section 2 provide simple and effective tools that will assist your organisation to map out its interdependencies. These tools can also assist your organisation in developing a communication plan (see below). Businesses can also seek support from state energy and emergency services authorities to gain an understanding of their energy sector interdependencies.

Communications Plan

The Department of Innovation, Industry, Science and Research's *Business Continuity Guide*⁶ stresses the importance of incorporating a communication strategy into pandemic planning. Your organisation may consider how to maintain communication both within the organisation and to external stakeholders prior to and during a pandemic event.

Internal stakeholders:

Good practice indicates that, prior to a pandemic event, organisations should keep staff informed of planned response mechanisms to ensure safety and continued business operations. This pre-emptive approach can alleviate anxiety and concern by staff and help to mitigate potential overreaction and unnecessary disruptions.

During a pandemic event organisations may wish to communicate information on:

- workplace hygiene (i.e. notices/training on hand washing and cough etiquette);
- seasonal flu inoculation programs (if offered);
- quarantine and social distancing;
- actions if a worker becomes sick in the workplace;
- policies, such as sick leave, carers leave and whether PPE will be provided to staff and/or their immediate family (See Templates 9, 10 in Section 2);

⁶ Department of Innovation, Industry, Science and Research, 2006. *Business Continuity Guide for Australian Businesses*, www.industry.gov.au/Pandemic_Business_Continuity/Business%20Continuity%20Guide%20for%20Australian%20Business/Pages/home.aspx, accessed Jan 2010 [nb. report does not account for the current differences between Australian and WHO pandemic phases]

- remote access arrangements (either over the public internet or on the organisation's IT networks);
- developments in treatments or new flu information (medical advisories); and
- access to anti-viral medication (prescribed and administered by a healthcare professional), if the organisation chooses to provide medication for staff and immediate family.

Part of a successful communication plan is ensuring that your organisation can contact staff quickly outside of work. You may wish to consider establishing a website where this information can be posted. A group email address list or pre-recorded phone or SMS text messages can also assist with disseminating information quickly. You may also wish to consider how to communicate with employees and stakeholders if phone or internet services are unreliable or unavailable.

External stakeholders:

It is good practice to communicate your organisation's pandemic strategy to suppliers, customers, contractors, industry regulators and other stakeholders. This facilitates understanding of interdependencies that exist between organisations. You may also wish to consider:

- building communication networks that include business-government relationships, industry associations and interested groups such as the TISN Pandemic Community of Interest (refer to case study on page 14);
- creating and communicating consumer protocols to assist customers in the event of a pandemic;
- monitoring pandemic spread and phase changes in other countries if your organisation's interdependencies are abroad; and
- identifying key supply chain interdependencies and ensuring their Business Continuity Plans are in place in the event of a pandemic.

Do your tender/contract documents contain a clause requiring organisations to have contingency plans that include pandemic arrangements?

Supporting staff and their families

Organisations may wish to incorporate special provisions for supporting staff and their families during a pandemic event. Organisations should be aware that staff are likely to be concerned and preoccupied about the wellbeing of their families and that their commitment, ability and availability to work may not be a priority.

As seen in the 2009 H1N1 Influenza outbreak, childcare centres and schools can be closed for significant periods during a pandemic event. Staff may also have family members who are ill and need to be cared for at home. Therefore an effective pandemic plan should also consider:

- remote access arrangements;
- assisting essential workers with childcare;
- providing increased opportunities for regular contact with families; and
- providing counselling services.

Do your HR policies allow you to know how many of your staff have children school aged or younger? Do these staff perform critical functions?

Quarantine issues (including travel)

Social distancing is a major mitigation and prevention strategy for an influenza pandemic. It will be important for those staff who are unwell to be encouraged to stay away from work. If they are identified at work, measures to limit spread of infection should be activated.

It is also important to support staff who have been advised to stay at home because of contact with a possible infectious person. However, in case of a pandemic an employer cannot simply turn people away from the workplace on suspicion of being unwell. Suspected cases must be referred for medical attention and the encounter needs to be documented. These reports should be made available to the Pandemic Manager to enable back-tracing of an infected staff-member's contact path. This enables the identification and monitoring of potential new infections.

Legal advice on possible implications of asking people to stay away from work if they are non-essential personnel may need to be sought. There could be legal ramifications after the pandemic if staff designated as absent on sick leave were not in fact sick but were obeying instructions to remain at home at the request of the organisation. A situation such as this could result in a claim for loss of benefits to workers. Whichever approach is taken, staff absenteeism rates will need to be continuously monitored.

A case study of one critical energy infrastructure owner/operator's experience of quarantine issues during pandemic H1N1 2009 is outlined below.

Case Study: Quarantine Issues

As an owner and operator of critical infrastructure located in remote areas, a range of measures and controls were already well established (in particular, infectious disease management) within the organisation. Overall the organisation avoided any significant impact from the pandemic H1N1 2009 outbreak; however, some suspect cases tested the local capabilities at specific sites.

In one example a contractor employed at site but living interstate presented at the site medical centre with flu like symptoms. In accordance with the site infectious disease protocols, the individual was placed in isolation and samples were sent off for testing. Given the remoteness of the site and the testing timeframe, the individual was kept in isolation for approximately 72 hours.

During this time, ongoing monitoring occurred and local contact tracing took place. Local staff members were kept informed and the organisation activated its incident response arrangements (in accordance with its Pandemic Plan). The test results were negative and the contractor was allowed to return to his home location. Throughout this incident the site continued to operate normally, although options for reduced staffing were considered if the situation deteriorated.

This case highlighted the strength of well established procedures at major sites and the organisation's capacity to manage such an incident. Whilst the existing capability proved effective, key learnings from the incident for the organisation were:

- the isolation facilities should be configured for potentially longer stays (up to 3 days) and maximize comfort for the individual (e.g. television, internet, etc);
- ensuring the patient remains calm and is provided with as much information as possible to minimise any concerns; and
- if evacuation is required, ensuring the principal methods of evacuation (e.g. road, air) does not expose others to the risk of infection.

From an organisational perspective the learnings from this case have been distributed to other business units and applied where appropriate.

Business Essential Travel:

Organisations may wish to consider policies for staff travel, both domestic and international, in the event of a pandemic.

There may be travel restrictions in place in relation to bringing staff back to Australia. If this occurs, a plan for supporting them overseas (such as providing shelter in-place) may need to be developed.

Organisations with international operations may wish to confirm evacuation arrangements with the Department of Foreign Affairs and Trade (DFAT). DFAT's Smart Traveller website, www.smarttraveller.gov.au, includes specific flu travel advisories for multiple countries which are also available via phone as automated recordings on 1300 139 281 from within Australia or +61 1300 139 281 if overseas.

Regulatory and Legal Frameworks

Consideration of regulatory obligations during a pandemic is an important starting point for planning. Matters for consideration include whether you are required by law to supply an essential service during a pandemic. Not all energy organisations are required by law to provide their services and/or operations during such an event. You may wish to seek legal advice to clarify your position. You may also wish to seek legal advice on how the pandemic will affect your business contracts.

There is no guarantee that a pandemic will be considered a *force majeure* event. You may need to consider the responsibility and liability of your contracts for both supply and delivery.

You should also be aware of any reporting requirements, both Federal and State, in a pandemic.

State and Territory legislation

State and territory legislative provisions that support responses to a human influenza pandemic are included in state and territory public health acts. These provisions include notification of disease, application of coercive powers (including quarantine and school closures), public health incident and emergency powers.

All states and territories have emergency management and other legislation for their own jurisdictions that may be applied in the event of a pandemic. This legislation is referred to in state and territory plans and covers a range of functions, such as ambulance, police, energy supplies, transport, water and local government⁷.

Commonwealth Legislation

Organisations should also be aware that decisions with a significant impact on operations can be made by entities outside the organisation's control. For example:

- *Quarantine Act 1908*: The Federal Parliament has express legislative power in respect of quarantine. The *Quarantine Act 1908* deals with external quarantining at the border and internal quarantine arrangements within Australia. The Act applies to agriculture and human health issues and empowers authorities to quarantine goods, vessels and people; and
- *Customs Act 1901*: The Australian Customs Service (Customs) works closely with other government and international agencies to manage the security and integrity of Australia's borders. Customs also administers legislation on behalf of other government agencies for the movement of goods and people across the Australian border.

You should also consider any implications that restrictions on movement could have to your organisation's operations – particularly if your staff need to travel.

Critical Infrastructure Resilience Frameworks

ESG and the TISN

The ESG's Energy Pandemic Influenza Community of Interest feeds directly into the TISN Pandemic Influenza Community of Interest (PI Col). The PI Col was formed in 2008 as a means of sharing information on pandemic preparedness planning. The group comprises representatives of critical infrastructure owners and operators that liaise with each other to share and validate information about human influenza pandemic or other wide scale human health emergencies (see case study below). The TISN is run by the Attorney-General's Department (AGD) and the TISN work program is coordinated by the Critical Infrastructure Advisory Council (CIAC).

The CIAC was established by AGD in November 2002 to provide a mechanism for advice to government on the protection and resilience of Australia's critical infrastructure. CIAC comprises representatives from relevant Australian Government agencies, each of the States and Territories and the National Counter-Terrorism Committee (NCTC). The CIAC also includes a representative (the Chairs) from each of the designated CI Sector Groups of the TISN, reinforcing the important role that the private sector plays in protecting and ensuring the resilience of Australia's national critical infrastructure.

Whilst CIAC is not a policy making body, it collates and distributes information throughout industry and provides feedback to the government to assist in forming policy.

Case Study: TISN Pandemic Influenza Community of Interest (PI Col)

The TISN PI Col was formed in April 2008 to discuss pandemic issues across the TISN. During the 2009 H1N1 Influenza pandemic the PI Col held audio conferences with critical infrastructure owners and operators and government agencies. Members of the PI Col reported that the group played a valuable role filling the gaps in information available from the public domain. The health updates provided by DoHA were considered especially valuable. Although the information provided in these audio conferences was largely health based, members reported that the group assisted them to consider the approaches applied by other organisations and to validate their own pandemic planning. Overall members found this information sharing vital.

More information on the TISN PI Col including details on how to participate can be accessed at www.tisn.gov.au. Please note that organisations will need to sign a deed of confidentiality before they can participate in the TISN.

ESG and the TISN During a Pandemic Event

During a Pandemic event, the TISN PI Col can provide advice and recommendations to government via the Business Reference Group (BRG).

The BRG is an authoritative group representing critical infrastructure owners and operators with whom the Australian Government can consult to input critical infrastructure business advice to inform National Pandemic Emergency Committee (NPEC) deliberations.

The NPEC will be convened by PM&C during a pandemic event. The NPEC will generally comprise representatives of First Ministers' and Health departments,

the Australian Local Government Association and additional emergency service representatives if required.

The NPEC is designed to agree the high-level national policy and public communications response and support the Council of Australian Governments in its role of achieving cooperation among governments.

Testing the Plan (Template 12)

In order to be effectively prepared for a pandemic, your organisation's pandemic plan, and overarching business continuity plans, should be tested and amended as necessary (see Template 12, Section 2). Plans should include feedback mechanisms to enable effective analysis and review. Observing or assisting in the tests of other organisations pandemic plans can also be an effective way of determining your exposure to interdependencies and their reliance on your services.

Summary of observations of good practice in the Energy sector from 2009 H1N1 Pandemic Influenza

The 2009 H1N1 Pandemic Influenza provided an opportunity for organisations to exercise and review their pandemic planning during a relatively minor infection. This opportunity identified several key issues to consider prior to another pandemic event.

- Ensuring and reinforcing good personal hygiene measures is the most important factor in the spread of infection.
- Maintaining flexible pandemic planning, preparedness and response will help organisations ensure the risk and controls are appropriate to the infection and their business.
- Appointing a Pandemic Manager can provide a focus for this type of event and enable the business to be better prepared.
- Being connected to those in the know and providing opportunities to share information among an interest group such as the TISN Pandemic Col enables the business to benchmark their response and keep up to date with developments.
- Having access to reliable information from credible sources will help ensure correct information is issued.
- Testing the plan and reviewing assumptions is essential to ensure the plan remains valid as the pandemic event is developing and in accordance with Commonwealth and state regulatory requirements.
- Communicating to stakeholders internally and externally is essential.
- Business continuity requirements including staffing and IT resources must be reviewed regularly.
- Having a stockpile of essential supplies (including PPE if required) as availability could be reduced once a pandemic occurs. This includes planning for obsolescence.

* S. Woolger, Chair of Energy Pandemic Community of Interest

SECTION 2 – TEMPLATES

This section provides templates to assist organisations to plan and recover from a pandemic event. Each section is based on the relevant points outlined in Section 1 and incorporates:

- the authority of the CEO;
- regulatory frameworks;
- identification of critical functions;
- Assumptions under which policies are based;
- interdependencies;
- PPE stockpiles; and
- testing of the developed pandemic plan.

The templates are available electronically via the TISN website at www.tisn.gov.au/www/tisn/tisn.nsf/Page/Publications_Energypublications. Organisations are encouraged modify the templates to suit their business.

Also provided on website is an Excel spreadsheet that can be used to identify the critical functions of the organisation, and the persons, contractors, or suppliers that support and deliver those critical functions. The spreadsheet has several worksheet tabs that represent suggestions of major functions of a typical energy business.

The spreadsheet also has a summary “ranking” of all these functions for use by the CEO and Pandemic Manager, enabling them to prioritise the planning and recovery effort to those most critical parts of the organisation.

In the templates are *suggested* critical areas and functions of a typical energy organisation. These serve as prompts to identify critical functions, and can be changed to suit the organisation.

**PANDEMIC
EMERGENCY
MANAGEMENT PLAN**

for

(Insert Organisation name)

Version: _____

Date: _____

Author: _____

Last edited: _____

TEMPLATE 1

The _____ (organisation name), as part of its business continuity planning, is putting in place a Pandemic Management plan. Whilst the likelihood of a human influenza pandemic is low, the effects on the organisation in such an event would be devastating.

_____ (Insert the nominated Pandemic Manager's name) is nominated as the Pandemic Manager for the organisation, and will work with all business units and sections in identifying critical staff and functions.

_____ (Insert the alternative Pandemic Manager's name) will assist _____ (Insert the nominated Pandemic Manager's name), and be the alternative Pandemic Manager.

It is required that all business units and sections offer as much assistance to the Pandemic Manager and provide as much information as is necessary to enable the construction of a robust plan for the protection of our critical energy supply, and business continuity.

The plan will be reviewed _____ (insert a nominated review period, suggested annually).

On completion of the pandemic plan, a desk-top exercise will be carried out to test the plan.

It is emphasised that this pandemic plan will work within the organisation's existing business continuity framework and will maintain the established lines of authority.

I trust all business sections will offer as much assistance in this as is required.

(Signed and dated by the CEO/MD)

TEMPLATE 2

Purpose of the Plan

To enable _____
(organisation name), to plan, prepare respond and recover in the event of influenza pandemic.

Regulatory Framework:

The regulatory framework in which _____ (insert organisation's name) operates is _____ (insert name of the regulatory framework/s).

In the event of influenza pandemic, the following actions will be taken to ensure compliance within this framework.

Commonwealth:

State and Territory:

Other:

TEMPLATE 3

Identification of Mission Critical Functions

The CEO/MD has determined that, for _____ (insert organisation's name), the following tasks are mission critical to the business and must be maintained. As such, support to these functions and the relevant staff members will be our first priority.

Table 1: Mission Critical Business Functions

Name of Mission Critical Business Unit	Number of Essential Staff	Other Requirements
<i>E.g. (List functions)</i>		
<i>Human Resources—Payroll</i>		

Identifying and Prioritising Mission Critical Functions and Staff

Section 3 of the pandemic guide contains formatted spreadsheets (designed by Brian Kelly, former Chair of the Energy Pandemic Col) which are available on the TISN Website at www.tisn.gov.au/www/tisn/tisn.nsf/Page/Publications_Energypublications .

The spreadsheets consist of several worksheets, or “tabs”. The spreadsheet has its own guidelines at the first tab which should be read prior to populating the template.

Tables 2 and 3 (page 23) demonstrate how to use the spreadsheet tool to identify and prioritise key people that support the operational functions of any energy business. It should be noted that there are key differences in the functioning of electricity and oil and gas sectors. As such, each sector will have different criticalities, as presented in Tables 2 and 3.

Once the pandemic manager has consulted widely and populated the spreadsheet tables, this can then be copied and “special paste” into a *Word* document and included in your pandemic plan.

Table 2: Electricity sector - criticality table

Over-view for XYZ company, organisation,			
Business Unit organisational Ranking - Considering Long Term Impact			
Electricity Sector			
Impact Period			
21 weeks			
(Note -Do not change cell contents - this sheet is not protected and to enable users to manipulate the information automatically sourced from previous worksheets. Use Sort and Filter commands as required)			Critically of This Service to the over-all business.
			% of all
1	Electricity Distribution Maintenance	0	#DIV/0!
2	Generating Plant Fuel Supply	0	#DIV/0!
3	Generation	0	#DIV/0!
4	System Control	0	#DIV/0!
5	Transmission (Asset Management)	0	#DIV/0!
6	IT Services	0	#DIV/0!
7	Network Field Services	0	#DIV/0!
8	Network Engineering Support	0	#DIV/0!
9	Purchasing	0	#DIV/0!
10	Alternative Fuel Supply	0	#DIV/0!
11	Human Resources , Industrial Relations & Safety	0	#DIV/0!
12	Network Planning	0	#DIV/0!
13	Finance	0	#DIV/0!
14	Corporate Management, Incl. Disaster Management	0	#DIV/0!
15	Retail and Customer Services	0	#DIV/0!
16	Corporate Support	0	#DIV/0!
17	Spare Sheet for Services # 1	0	#DIV/0!
	total	0	#DIV/0!

Table 3: Gas and liquid fuels sector - criticality table

Over-view for XYZ company, organisation,			
Business Unit organisational Ranking - Considering Long Term Impact			
Gas and Liquid Fuels Sector			
Impact Period			
21 weeks			
(Note -Do not change cell contents - this sheet is not protected and to enable users to manipulate the data which is automatically sourced from previous worksheets. Use "Sort" and "Filter" commands as required)			Critically of this service to the over-all business.
			% of all
1	Business & Corporate Support	0	#DIV/0!
2	Downstream Oil Shipping	0	#DIV/0!
3	Refining	0	#DIV/0!
4	Storage and Distribution	0	#DIV/0!
5	Oil Retail Operations	0	#DIV/0!
6	Aviation Fuels	0	#DIV/0!
7	Business General Management , disaster recovery	0	#DIV/0!
8	Spare sheet 1	0	#DIV/0!
9	Spare sheet 2	0	#DIV/0!
10	Spare sheet 3	0	#DIV/0!
	total	0	#DIV/0!

TEMPLATE 4

Assumptions

The following expectations and associated assumptions regarding the environment _____ (insert organisation name) will be operating in at _____ during a pandemic event are listed below.

Some examples are summarised in Table 4 below (modify the table and its contents as required to best suit your circumstances).

Table 4: Expectations and assumptions of the operating environment of:
_____ (insert organisation name).

Expectations	Assumptions
Business as usual	Availability of staff, infrastructure, freedom of movement, access to supplies, ability to protect staff (and families)^
Staff will come to work	People will not panic and stay at home, people will have freedom of movement as essential service providers, transport systems will be operating, people will have access to petrol for their cars, availability of personal protection equipment etc (if required).^
Minimal operating	Agreements with staff, changing work routines, availability of remote access*
Staff will be paid	Availability of communication and banking and finance systems, continuity of law and order.
Staff will work from home	Availability of communications, organisation's systems can cope* (See assumptions below for <i>IT—Organisation network expectation</i>).
Security of assets and infrastructure	Continuity of law and order.
Maintenance of assets/ infrastructure	Freedom of movement for essential service providers, access to supplies for repair (including access to imported goods if required), availability of personal protection equipment.^
IT Network – (Public)	The national telecommunications system will remain operational. Staff operating from home or other bases* will be able to use this network to remotely access the organisation's IT systems. (See assumptions below for <i>IT—Organisation network expectation</i>).
Organisation will not operate	No regulatory obligation, agreements with staff in place (holiday leave, unpaid
IT - Organisation network	The organisation's IT network will remain operational to accept ____ (insert a number of expected) staff seeking remote access to the organisation's IT network. It has been researched that ____ (insert number) staff have suitable and operating IT hardware and software infrastructure to access the organisation's IT network from home or other bases. This has been randomly tested to ____ (insert number) as at _____ (insert a date).

*This assumption will entail an organisational policy on remote access arrangements that will need to be tested with your telecommunications provider.

^ Use in conjunction with templates 9 and 10.

TEMPLATE 6

Table 6: External Stakeholders / Major Clients likely to be Affected

The following list of external stakeholders have been identified as interdependent organisations for. These organisations have been included in _____(insert organisation name) communications plan and alternative arrangement options have been considered in consultation with each of them.

Organisations affected by potential loss of our services - typically major clients	Contact person	Contact Details	When do they need to be contacted - What effect will a loss of services, have on this client / end user	Assistance they can offer to lessen demand on our infrastructure
<i>Modify as required</i>				

TEMPLATE 7

Table 7: Major suppliers to the organisation

Loss of services/products from the major suppliers listed in the below table will have an affect on the organisation.

Suppliers who the organisation depend on for services/products	Contact person	Contact details	What effect will loss of services from this supplier have on the organisation?	What can the organisation do to lessen the demand on this supplier?
<i>Modify as required</i>				

TEMPLATE 9

Policy on Prophylaxis, medication stock-pile, and Protective Materials

Note: There are serious considerations if you wish to stockpile PPE and antivirals, such as maintaining appropriate storage, turnover of stocks and, appropriate prescription and administration of medicines.

Policy: (insert information on the organisation's policy i.e. to use Social Distancing, OH&S arrangements and/or other PPE methods.)

If the organisation does choose to invest in PPE and/or anti-virals, the following may be useful in keeping track of these:

Anti viral medication is/is not to be stockpiled within the Organisation.

If stockpiled by the organisation:

These anti viral medications were received on _____ / _____ / _____. This medication is labelled and batch numbered _____, and is due to expire on _____ / _____ / _____.

There are _____ (quantity) doses of antiviral medications in this batch which will service _____ people at a dose rate of _____ per person.

Anti viral medication is/is not available in tablet form.

If anti- viral medication is in vial injection form:

Administration of the medication is to be carried out by _____ (qualified personnel), contact details _____.

The organisational policy for dealing with obsolescent stock is _____ (eg. donate to charity prior to expiry)

Families of critical staff have/have not been allocated anti viral medication.

List of persons to receive anti-viral medication should be created and maintained.

This list is attached /or can be found at _____ (insert location).

The Pandemic Manager will review this list and up-date on _____ / _____ / _____ (insert a review date).

TEMPLATE 11

In order to use the Pandemic Response Matrix in Figure 1, organisations will need to clearly articulate their response to any changes in severity. The table below demonstrates how this template can be used to map out your organisations responses. Please note the template contains *examples* of response actions, each organisation will have specific needs that will need to be addressed through their own response actions. An electronic version of this table is available at www.tisn.gov.au/www/tisn/tisn.nsf/Page/Publications_Energypublications

Table 11: Severity Response Actions

	Monitor Situation	Communicate	Control Infection	Support Employees	Maintain Essential Operations	TISN / Sector Groups
Routine	Planning and development of pandemic preparedness, response and recovery strategies.	Development of communication policies / strategies for changes in alert phases and to be routinely reviewed in light of current research.	Development of Pandemic countermeasures.	Review existing policies or develop new policies and identify when policies would be invoked	Business to identify and review essential services	
	Maintain a watching brief on current pandemic situation via credible sources.				Review contracts with a view to maintaining supply	
Engage	Maintain a watching brief on current pandemic situation via credible sources.	Briefing executive team as necessary	Instigate basic social distancing, quarantine and hygiene practises	Consider support for managers to make decisions WRT employee concerns	Review BCPs and update with latest information	Activate Sector Group / TISN communication strategies
		Periodic updates to staff	Confirm anti-viral priorities and consult with health authorities			
Enhance	Maintain a watching brief on current pandemic situation via credible sources.	Briefing executive team as necessary	Maintain infection control measures and consider further developments to control infection	Consider support for managers to make decisions WRT industrial relations matters	Review BCPs and update with latest information	Enhance Sector Group / TISN communication strategies
		Periodic updates to staff				Activate State SCN / engagement model plans / communications
						Activate BRG information flows
Fully Activate	Maintain a watching brief on current pandemic situation via credible sources.	Briefing executive team as necessary	Prepare to support vaccine distribution as necessary to control infection	Enhanced support for managers WRT staff prioritisation	Activate BCPs to maintain essential services	Activate TISN / Sector Group interaction
	Monitor employee absentee rates	Periodic updates to staff	Maintain infection control measures and consider further developments to control infection	Develop recovery plans		Activate website central
						Activate relevant crisis response

TEMPLATE 12

Testing the Plan

This pandemic plan will be retested on _____ / _____ / _____, or as directed by the CEO of _____ (Insert organisation name).

The level of testing will be desk-top / at field level.

The test will / will not include independent assessment.

The test will / will not include interdependent organisations and suppliers.

APPENDIX A: Further Advice and References

The following generic publications to be useful in developing their organisation's plans:

Commonwealth:

Australian Government, 2009. *National Action Plan for Human Influenza Pandemic*,
www.pmc.gov.au/publications/pandemic/index.cfm

Department of Industry, Tourism and Resources, 2006. *Business Continuity Guide for Australian Businesses*,
www.industry.gov.au/Pandemic_Business_Continuity/Business%20Continuity%20Guide%20for%20Australian%20Business/Pages/home.aspx

Department of Health and Ageing, 2008. *The Australian Health Management Plan for Pandemic Influenza*,
www.flupandemic.gov.au/internet/panflu/publishing.nsf/Content/ahmppi

The Department of Health and Ageing, Health Emergency Website 2009,
<http://www.healthemergency.gov.au/internet/healthemergency/publishing.nsf>

Australian and New Zealand Standard, 2004. AS/NZS 221:2004, *Business Continuity Planning*.

Australian and New Zealand Standard, 2004. AS/NZS 436:2004, *Risk management* (available from the EIAAG Secretariat).

State and Territory:

ACT Health, <http://www.health.act.gov.au/c/health?a=dlpubpoldoc&document=760>

NSW Health, <http://www.health.nsw.gov.au/publichealth/pandemic/index.asp>

Department of Health and Community Services (Northern Territory),
http://www.health.nt.gov.au/Emergency_Management_and_Disaster_Arrangements/Panemic/index.aspx

Queensland Government, <http://www.qld.gov.au/about/health-and-communities/pandemic-influenza.html>

Department of Health (South Australia), <http://www.health.sa.gov.au/>

Department of Health and Human Services (Tasmania),
http://www.dhhs.tas.gov.au/health_and_wellbeing/public_and_environmental_health/related_to_pics/pandemic

Victorian Government Health Information, <http://www.health.vic.gov.au/pandemicinfluenza/>

Department of Health (Western Australia),
http://www.public.health.wa.gov.au/1/422/2/pandemic_influenza.pm

International:

World Health Organisation (WHO), *Current WHO phase of pandemic alert*,
http://www.who.int/csr/disease/avian_influenza/phase/en/index.html

Centers for Disease Control and Prevention (CDC), *Stages of a pandemic*,
<http://www.cdc.gov/flu/pandemic/phases.htm>

US Department of Homeland Security: *Issues and Consequences in Pandemic Planning* (available from the EIAAG Secretariat).

New Zealand Pandemic Planning: *The Infrastructure Work stream and Maintaining Business Continuity* (available from the EIAAG secretariat).

APPENDIX B: Australian Pandemic Phases

Australian phase	Description	
ALERT	A novel virus with pandemic potential causes severe disease in humans who have had contact with infected animals. There is no effective transmission between humans. Novel virus has not arrived in Australia.	
DELAY	Novel virus has not arrived in Australia. OS4 Small cluster of cases in one country overseas. OS5 Large cluster(s) of cases in only one or two countries overseas. OS6 Large cluster(s) of cases in more than two countries overseas.	
CONTAIN	Pandemic virus has arrived in Australia causing small number of cases and/or small number of clusters.	<div data-bbox="868 577 1091 1077" style="background-color: #d9e1f2; text-align: center; vertical-align: middle;">PROTECT</div> <div data-bbox="1091 577 1417 1077">A pandemic virus which is mild in most but severe in some and moderate overall is established in Australia</div>
SUSTAIN	Pandemic virus is established in Australia and spreading in the community.	
CONTROL	Customised pandemic vaccine widely available and is beginning to bring the pandemic under control.	
RECOVER	Pandemic controlled in Australia but further waves may occur if the virus drifts and/or is re-imported into Australia.	

For the most up-to-date information on the Australian Pandemic Phases please refer to the www.flupandemic.gov.au