



IPART Independent
Pricing and Regulatory
Tribunal | NSW

Recommended charges for Fire and
Rescue NSW's hazardous material
incident attendance

Information Paper

March 2022

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The Independent Pricing and Regulatory Tribunal (IPART) has reviewed Fire and Rescue NSW (FRNSW)'s fees and charges. We have made recommendations on which of FRNSW's services should have user charges; and how FRNSW should recover the costs of providing those services. Our recommendations will inform a review of the *Fire Brigades Regulation 2014* (FB Regulation), and any new charges should apply from 1 September 2022.

In December 2021, we released a [Draft Report](#) and associated [information papers](#), including an information paper with our draft recommendations on charges for attending hazardous material (hazmat) incidents. We received written submissions on the Draft Report and held a [public hearing](#). We considered all the views expressed in submissions and at the public hearing. We also updated some of the cost inputs based on stakeholder consultation.

This Information Paper sets out our recommendations on charges for attending hazmat incidents, and is structured as follows:

- Section 1 summarises our final recommendations on FRNSW's hazmat charges.
- Section 2 provides an overview of FRNSW's hazmat incident attendance and current charges.
- Section 3 explains our approach in making our recommendations.
- Sections 4 to 6 provide our assessment of the basis for user charges for hazmat incident attendance, analysis of the efficient costs of FRNSW's hazmat incident attendance, assessment of various charging options and explain how we considered feedback from stakeholders on our Draft Report.
- Section 7 discusses the impact of our final recommendations.

This Information Paper supports our Final Report. Separate information papers contain our analysis and recommendations on charging for false alarm call-outs, automatic fire alarm management and system service, fire safety activities in the built environment and FRNSW's other services.

Timeline for this review



1 Summary of our recommendations

Recommendations

2. FRNSW charge a call-out fee plus hourly charges for hazmat incidents as set out in Table 1.1:
- Incidents less than one hour (inclusive) will incur a call-out fee of \$360 for wires down incidents and \$510 for other hazmat incidents.
 - Incidents more than one hour will incur a call-out fee plus hourly charges as set out in Table 1.1 depending on the equipment used.

Table 1.1 sets out our recommended charges for attending hazmat incidents. Overall, we recommend a call-out fee plus hourly charges for hazmat incidents.

Under our recommendations, incidents less than one hour (inclusive) will incur a call-out fee, and those of more than 1-hour duration will incur a call-out fee plus additional variable charges depending on the equipment used.

The recommended call-out fee is different for wires down and other hazmat incidents, but the same variable charges will apply to both incident types. The call-out fee for other hazmat incidents is \$150 higher than wires down incidents due to higher costs associated with administration and billing for other hazmat incidents.

Consistent with FRNSW's current approach, we recommend half of the hourly charge apply for each half hour of use.

Table 1.1 Recommended charges for hazmat incident attendance (\$2022-23, ex-GST)

		Unit	Charge
Call-out fee applicable to all incidents			
Wires down		Per incident	\$360
Other hazmat incidents		Per incident	\$510
Variable charges applicable to incidents over one hour where chargeable time is total attendance time less one hour			
Each standard pumper and hazmat pumper (4 crew)	Total	Per hour	\$500
	Labour	Per hour	\$460
	Vehicle	Per hour	\$40
Each other hazmat vehicles and Mobile Command Centre (2 crew)	Total	Per hour	\$285
	Labour	Per hour	\$240
	Vehicle	Per hour	\$45
Each special operations vehicle (1 crew)	Total	Per hour	\$200
	Labour	Per hour	\$165
	Vehicle	Per hour	\$35

	Unit	Charge
Other equipment		
Each hazmat delta decontamination shelter	Per hour	\$285
Each boat (including a trailer and vehicle to tow it)	Per hour	\$285
Each helicopter	Per hour	\$3,365
Each hose	Per hour	\$35
Each fully encapsulated gas suit	Per hour	\$100
Each spillage suit	Per hour	\$10
Each self-contained breathing apparatus	Per hour	\$45
Each standard gas detector	Per hour	\$85
Each unit of specialised detection equipment	Per hour	\$85

Our final recommended call-out fees are higher than the draft recommendations. This is because of a higher estimate of administration costs which now include the costs of operating FRNSW's critical systems needed to respond to emergencies. These costs were not included in the draft recommended charges.¹

Our final recommended charges for some types of equipment have also changed since the Draft Report. In our Draft Report, we recommended the same charge for hose, gas suit, breathing apparatus, gas detector and specialised detection equipment based on their average efficient cost.² For our Final Report, we recommend these charges be set separately at their individual efficient cost.

We explain how we reached our final decisions and why these differ from the Draft Report in more detail in Section 6.

In addition to recommending hazmat charges, we recommend that FRNSW review its hazmat charging policy to remove the time threshold for chargeable incidents and charge all distribution network service providers (DNSPs). Also, we recommend that FRNSW record the cause of a wires down incident in line with the chargeable causes of an incident set out in the memoranda of understanding (MOU) between Fire and Rescue NSW and DNSPs. Finally, we recommend that when the FB Regulation is next reviewed, the remade regulation should provide flexibility for FRNSW to charge at cost for the use of equipment that is not listed in the FB Regulation.

2 FRNSW's hazmat incident attendance and current charges

Under the *Fire and Rescue NSW Act 1989* (the Act), FRNSW is responsible for protecting the people, property and environment of NSW from the impact of hazmat incidents. A hazmat incident is an actual or impending land-based spillage or other escape of hazardous material that causes or threatens to cause injury or death or damage to property.³

FRNSW responds to 2 types of hazmat incidents:

- incidents involving electricity "wires down", where services are provided to DNSPs
- all other hazmat incidents, where services are provided to individuals, organisations or other government agencies.

FRNSW currently can charge for any hazmat incident response, but has policies about not charging in various circumstances. In practice, FRNSW only charges for 2-6% of incidents.⁴

FRNSW also has other responsibilities regarding hazardous materials:

- receiving notifications of radiation gauges and the locations of radiation sources⁵
- consultation and making recommendations about emergency plans for workplaces that handle, use or store hazardous chemicals exceeding a certain quantity, major hazard facilities; and licensed explosives sites.⁶

The Act provides for FRNSW to recover charges for the services of the brigades in respect of hazmat incidents anywhere in the State.⁷ FRNSW cannot charge for firefighting within a fire district where the fire arose from a hazmat incident.⁸

The FB Regulation sets out the maximum charges for attending hazmat incidents as:

- variable charges (half-hourly) for different items of equipment used or made available for use
- at cost for goods or services hired or purchased, or premises hired, to perform services
- at cost plus 10% handling costs for consumables.⁹

While FRNSW can charge for all hazmat incidents based on the charges in the FB Regulation, it does not currently charge for numerous categories of hazmat incidents, including:

- domestic hazmat incidents
- wires down incidents of less than 2-hour duration
- other hazmat incidents of less than 1-hour duration
- an incident arising from orphan waste.

Waiver or reduction of charges is by exception.

3 How we made our recommendations

In conducting this review, we have undertaken detailed analysis and public consultation:

- In June 2021 we consulted on draft Terms of Reference for the review and received 2 submissions before finalising the Terms of Reference in July 2021. A copy of the full final Terms of Reference is in our Final Report.
- We held numerous stakeholder meetings, including meeting with FRNSW, fire and rescue organisations in other jurisdictions, councils, automatic fire alarm service providers, relevant industry associations and building industry representatives. Details of our stakeholder engagement are provided in our Final Report.
- In August 2021 we released an [Issues Paper](#) which explained the terms of reference, outlined our proposed approach for the review and invited comments on key issues including our proposed approach. We received 8 submissions. A list of all submissions received is in our Final Report and submissions have been published on our website.
- We invited FRNSW to provide information for the review, including details of its costs and activities.
- We engaged consultants, the Centre for International Economics (the CIE) to review information provided by FRNSW and provide expert advice on efficient operating costs of those of FRNSW's services that we identified should have user charges. The CIE's draft and final reports have been published on our website.
- We released a [Draft Report](#) which set out our draft findings and recommendations. We received 6 submissions. A list of all submissions received is in our Final Report and submissions have been published on our [website](#).
- In January 2022 we held a public hearing where stakeholders provided feedback on our draft findings and recommendations. The transcript of the public hearing is published on our [website](#).

In making our recommendations on hazmat charges specifically, we took the following 4 steps:

1. assess whether FRNSW's hazmat charging should have user charges and have charges set out in the FB Regulation based on the principles outlined in Box 3.1
2. estimate the efficient cost of attending hazmat incidents using a cost build-up approach described in Box 3.2
3. determine the most appropriate charging structure for FRNSW based on 7 pricing principles outlined in Box 3.3
4. consider the impact of our recommendations on FRNSW and its stakeholders.

This approach is broadly in line with our overall approach for the review that ensures we take account of all matters required by our Terms of Reference. In Section 4 to 6, we describe how we have implemented these steps and how we considered all the views expressed in submissions and at the public hearing to reach our final recommendations and findings. Section 7 provides our analysis of the impact of our final recommendations.

Box 3.1 Principles for assessing user charges and having charges set out in regulation

Principles for assessing which of FRNSW's services should have user charges

We identified whether attending hazmat incidents should be subject to user charges based on the following principles:

- Equity – Where identifiable individuals create specific demand for FRNSW's services, they should pay for them. This includes FRNSW's regulatory activities.
- Efficiency – Where charging for a service ensures scarce resources are better allocated, FRNSW should charge for it.
- Risk mitigation – Where charging for a service provides an incentive for individuals to mitigate risk, FRNSW should charge for it; and where FRNSW undertakes activities that better mitigate risk, FRNSW should charge for them.

Principle for assessing if those charges should be set out in regulation

Once we determined attending hazmat incidents should have user charges, then we decided whether its charges should be set out in regulations based on whether it is a monopoly service.

Box 3.2 Cost build-up approach and capital allowance

We used a 'cost build-up' approach to estimate total efficient costs. Under this approach, we assess efficient operating, maintenance and depreciation costs, by:

- analysing information provided by FRNSW on its historical and projected operating costs and activities
- engaging consultants, the CIE, to review information provided by FRNSW and provide expert advice on efficient operating costs of hazmat incident attendance.

We then added a capital allowance of 10% to compensate FRNSW for committing capital investment.

Our estimated capital allowance is based on the average Earnings Before Interest and Taxes (EBIT) margin for selected proxy industries, which are comparable to FRNSW in terms of its chargeable activities. These industries included fire and security alarm installation services, investigation and security services, fire protection services and hazardous waste hauling services. The Final Report provides our analysis of capital allowance in more detail.

Box 3.3 Principles for recommending charges

In recommending charges for attending hazmat incidents, we assessed various options against the following pricing principles:

- **Transparent** – Key information about the charges should be readily available, such as the authority to charge, charging rates, and, where relevant, the basis of the charges.
- **Cost reflective** – Charges should reflect the efficient cost of providing the service.
- **Equitable** – Charges should be equitable and affordable.
- **Create positive incentives** – Where relevant, charges should incentivise risk mitigation.
- **Simple** – Charges should be straightforward, practical, easy to understand and collect.
- **Flexible** – Charges should be easily applicable to any new activities that FRNSW undertakes in future.
- **Consistent** – Charges should be consistent between similar activities conducted by FRNSW and consistent with charges for similar activities conducted by other NSW agencies, where relevant.

4 User charges for hazmat incident response

The first step in our approach for recommending FRNSW's fees and charges is to identify which FRNSW's services should have user charges and have charges set out in the FB Regulation.

We have conducted a comprehensive review of FRNSW's non-core services and assessed whether each service should be subject to user charges, and, if so, whether it should have charges set out in the FB Regulation. The key principles we have applied are:

- whether there is an identifiable impactor who creates the need for the service in question. Our view is that the impactor or risk creator should pay the costs associated with providing the service
- whether the service in question is a monopoly service to decide whether it should have charges set out in the Regulation. If FRNSW is not the monopoly provider of the service in question, customers can choose to engage FRNSW or other services providers in the market. In this case, charges for the service do not need to be set out in the FB Regulation.

We have assessed that FRNSW's hazmat incident attendance should have user charges set out in the FB Regulation. This is because FRNSW is the monopoly provider of the service and there is an identifiable impactor. This is consistent with NSW Parliament's initial intention that the costs of dealing with hazmat incidents are shared with those who have responsibility for the hazardous material.¹⁰

5 Analysis of efficient costs of attending hazmat incidents

As Section 3 discussed, to make our recommendations on charges for attending hazmat incidents, we estimated the efficient costs of attending wires down and other hazmat incidents. We did this using a cost build-up approach.

5.1 Overview of our findings

We found that the costs of attending hazmat incidents are predominantly driven by the incident attendance time and the number of trucks, and as a result staff, that attend. However, the key difference is that attendance for other hazmat incidents is more administration intensive than wires down incidents and hence incurs higher administration and billing costs.

Table 5.1 summarises staff and vehicle costs. Pumpers are most frequently used. The average time per truck is 55 minutes for wires down incidents and 52 minutes for other hazmat incidents.¹¹ 73% of wires down incidents and 80% of other hazmat incidents are 60 minutes or less.¹²

Staff and vehicle costs do not vary between wires down and other hazmat incidents. Labour (staff) costs are the biggest cost driver for pumper costs. Most vehicle costs relate to vehicle running costs such as fuel and tyres.

Table 5.1 Staff and vehicle costs (\$2021-22)

	Unit	Staff	Vehicle variable	Vehicle fixed
Wires down				
1 crew	Per hour	\$195	\$30	\$1
2 crew	Per hour	\$202	\$29	\$9
4 crew	Per hour	\$414	\$29	\$8
Other hazmat incident				
1 crew	Per hour	\$136	\$30	\$1
2 crew	Per hour	\$213	\$29	\$9
4 crew	Per hour	\$395	\$29	\$8

Source: The CIE and IPART analysis.

Table 5.2 shows administration and billing and overhead costs per each wires down and other hazmat incident. While attending wires down and other hazmat incident has similar overheads, the cost of administration and billing is substantially higher for other hazmat incidents than for wires down incidents.

Table 5.2 Administration and billing and overheads costs (\$2021-22)

	Unit	Administration and billing	Overheads
Wires down	Per incident	\$19	\$92
Other hazmat incident	Per incident	\$84	\$96

The overhead costs have increased by around \$26 to \$29 per incident since our Draft Report.¹³ This reflects updated overhead costs to include FRNSW's emergency services computer aided dispatch (ESCAD) system, which were not included in our draft modelling. This is discussed further in Section 5.2.5.

5.2 Our approach to estimating efficient costs

We invited FRNSW to provide information on their costs and hazmat incident attendance. We commissioned the CIE to review this information and provide advice on efficient operating costs. The sections below provide key findings for cost drivers for FRNSW's hazmat incident attendance, which include:

- incident attendance time
- labour costs
- pumper costs
- administration and billing
- corporate overheads including depreciation
- equipment charges.

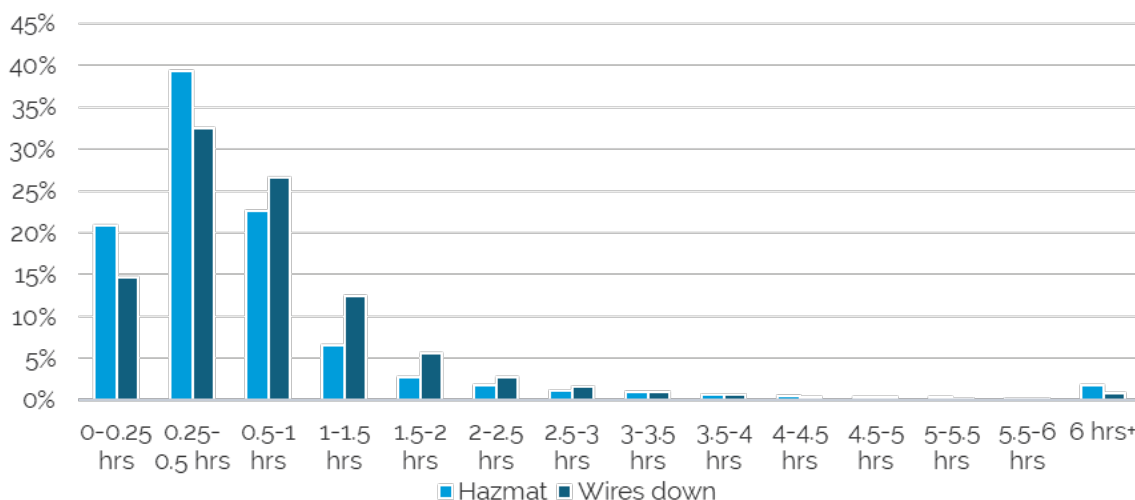
5.2.1 Incident attendance time

The total incident attendance time for each piece of equipment determines the incremental cost for staff and equipment. It is the time the equipment (or staff) left its station until the time the equipment (or staff) returned to its station. Staffing costs are directly related to the actual attendance time, while equipment costs include petrol and tyre usage and depreciation of the equipment used.

The average total incident time for wires down incidents is 66 minutes, and for other hazmat incidents is 62 minutes (with a median of 41 minutes and 30 minutes, respectively).¹⁴

About 83% of other hazmat incidents and about 74% of wires down incidents were under one hour per incident. Although most services were under an hour, there were some incidents with much longer times. Each year, on average around 25 wires down incidents (around 1%) and 174 other hazmat incidents (around 2%) had more than 6 hours of attendance.

Figure 5.1 Hazmat incident attendance time



Source: FRNSW

5.2.2 Labour costs

Either full-time firefighters or retained staff can attend a hazmat incident and, depending on the team, the staffing cost will vary. The cost of full-time staff is salary plus on-costs, while retained staff incur a 'call-out' charge with a minimum of 2 hours payment. As most hazmat incidents are less than one hour, retained staff results in a higher incremental staffing cost than full time staff.¹⁵

The standby time for the 2 different staff types is also very different. While the average standby time for full time staff is approximately 65%, retained staff have zero standby time, as they are only called and paid as needed (plus their annual retainer).¹⁶

The CIE's estimated labour costs are similar between wires down incidents and other hazmat incidents given the similar average total incident time.

Based on the CIE's estimated efficient cost, the average labour cost ranges between \$136 and \$414 per vehicle per hour depending on the resourcing requirement for each truck in terms of the number of crew.

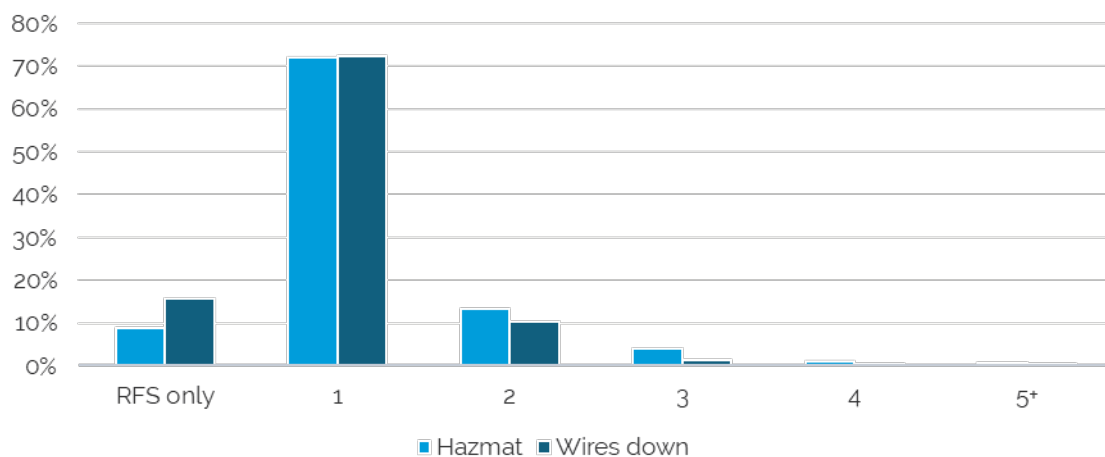
We note that the estimated labour costs include the cost of the Operational Communications team which manages the system that assigns resources to emergency incidents including hazmat incidents.¹⁷ The cost of the Operational Communications team relating to hazmat incidents is estimated to range from \$51 to \$88 per vehicle per hour.

5.2.3 Pumper costs

FRNSW utilises a variety of pumpers to attend a wires down incident or hazmat incident such as a standard pumper or specialised hazmat pumper. The number and type of pumpers that attend an incident will impact on the cost.

Pumpers are the most frequently used equipment in wires down and other hazmat incidents. On average, FRNSW uses 1.2-1.4 pumpers to attend hazmat incidents.¹⁸ Specifically, around 83% of wires down incidents had 1 or 2 pumpers attending. Also, most other hazmat incidents (about 85%) had 1 or 2 pumpers attending.

Figure 5.2 Number of items of equipment responding per incident



Source: FRNSW

The estimated pumper costs are similar between wires down incidents and other hazmat incidents due to the similar average total incident time.

Based on the CIE's estimated efficient cost, the average pumper cost is \$37 per truck per hour.

5.2.4 Administration and billing

The administration and billing for hazmat incidents is quite a manual process. FRNSW needs to identify an appropriate party to charge, input their details into FRNSW's IT platforms, and keep track of charges and bad debts. For consumables which are charged at cost (plus a 10% handling fee), operational staff need to keep track of all individual consumables used during service delivery and manually record the amount used at the end of a service.

For wires down incidents, the process is simpler as each electricity pole has a pole ID that FRNSW can use to identify the owner.

The CIE estimates that this administration and billing process takes an average of 15 minutes for wires down incidents and 60 minutes for other hazmat incidents. The estimated time translates into an average administration and billing cost of \$19 and \$84 per incident for wires down and other hazmat incidents, respectively.¹⁹

The CIE noted that there are often incidents that have administration times longer than the average. For these services, particularly if the incident duration is short, the administrative charge may not fully recover the cost. However, on average across all chargeable services, the administrative charge is cost-reflective.²⁰

5.2.5 Overheads and depreciation

There are other fixed costs FRNSW incurs in attending a hazmat incident. Table 5.3 summarises cost components and how their efficient costs are estimated. Based on the CIE's analysis, the average efficient overheads and depreciation is \$63 per incident for wires down and \$70 per incident for other hazmat incidents.

Table 5.3 Hazmat overheads and depreciation

Item	Detail	Estimated cost
Corporate overheads	Labour and operating costs of FRNSW's Corporate Services Division, Governance and Legal Regulatory Services and the critical systems needed to respond to emergencies (ESCAD costs, Government Radio Network recurrent costs, and the Stay Safe and Keep Operational program recurrent costs)	11.6% of the average hazmat attendance cost
Depreciation	Asset depreciation for the building, computers and other equipment	4.5% of the average hazmat attendance cost
Maintenance costs	Maintenance costs building, computers, communications and other general maintenance costs	3.0% of the average hazmat attendance cost

Source: The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, pp 66.

For the Final Report, the CIE estimated that the cost of corporate overheads is 11.6%. This is 4.7 percentage points higher than its estimate in the Draft Report. The CIE's estimate in the Draft Report included labour and operating costs of the Corporate Services Division and Governance and Legal Regulatory Services only.²¹

In response to our Draft Report, FRNSW commented that our efficient administration cost estimate did not include the costs associated with the critical systems needed to respond to emergencies (e.g. FRNSW's emergency services computer aided dispatch (ESCAD) system, Government Radio Network recurrent costs, and the Stay Safe and Keep Operational program recurrent costs). These costs are estimated to be around \$36 million per year.

We considered it reasonable to include the ESCAD-related operating costs in the efficient overheads. As a result, the labour and operating cost corporate overheads of hazmat attendance have increased from 6.9% to 11.6% of the average attendance cost, or from \$51 per incident to \$75 per incident. This was the key driver of the increase in the call-out fee from our draft recommendation.

5.2.6 Other equipment

Table 5.4 sets out the costs of other types of equipment.

The CIE estimated equipment costs for the types of equipment used in the last 5 years. The equipment costs include depreciation, annual costs of maintenance and insurance costs in some cases. The CIE used the purchase price and economic life to calculate annual depreciation. Annual maintenance costs are estimated to be about 3% of the purchase price, and insurance costs are estimated to be 50% of the maintenance costs.

The CIE found most of FRNSW's current equipment charges are not reflective of the actual cost.

We note that the CIE could not estimate the efficient costs for decontamination shelters, boats or helicopters as none were not used in the last 5 years.

Table 5.4 CIE's estimated costs - other equipment (\$2021-22, per hour)

Charge Item	Current charge	CIE's estimates
Each hazmat delta decontamination shelter	\$286	Not estimated
Each boat (including a trailer and vehicle to tow it)	\$286	Not estimated
Each helicopter	\$3,300	Not estimated
Each hose	\$55	\$37
Each fully encapsulated gas suit	\$275	\$99
Each spillage suit	\$55	\$10
Each self-contained breathing apparatus	\$55	\$42
Each standard gas detector	\$55	\$87
Each unit of specialised detection equipment	\$110	\$76
Trailer Chemical Decontamination foam	Not listed in Schedule 1 to the FB Regulation	\$286
Diaphragm Pump	Not listed in Schedule 1 to the FB Regulation	\$46

Source: *FB Regulation*, Schedule 1, Part 1: CIE analysis

6 Assessment of different charging options and our recommendation

The third step in our approach for recommending hazmat charges is to consider different charging options, assess each of the options against the 7 pricing principles outlined in Box 3.3 and determine the most appropriate charging structure. This section discusses the charging options we considered and provides our assessment of each option.

Overall, we consider the following charging structure is most appropriate for FRNSW's hazmat incident attendance and best meets our pricing principles:

- a call-out fee for incidents less than one hour (inclusive) where the call-out fee differs between wires down and other hazmat incidents reflecting different costs of administration and billing
- a call-out fee plus hourly variable charges for equipment for incidents more than one hour – the same variable charges apply to both wires down and other hazmat incidents reflecting similar equipment costs.

In the sections below we present 4 charging options we considered and provide our rationale for adopting our recommended charging option. Also, we address all the views expressed in submissions and at the public hearing and discuss additional recommendations regarding FRNSW's hazmat charging.

6.1 Charging options we considered

We considered 4 charging options for attending hazmat incidents:

Option 1: Call-out fee plus hourly charges for total attendance time for both wires down and other hazmat incidents:

- a. The chargeable time is the time the appliance(s) left its station until the time the appliance(s) returned to its station.
- b. The call-out fee covers administration, billing and overhead costs. The amount is different for wires down and other hazmat incidents due to significant differences in the administration and billing time.
- c. Hourly charges are set out for labour and equipment per resource and are the same for both wires down and hazmat incidents.

Option 2: Call-out fee for incidents less than one hour and call-out fee plus hourly charges for incidents more than one hour for both wires down and other hazmat incidents:

- a. All hazmat incidents less than one hour incur a call-out fee and those exceeding one hour incur a call-out fee plus hourly charges. The chargeable time for hourly charges is total attendance time in excess of one hour.
- b. The call-out fee covers administration, billing and overhead costs, half hour labour costs, and half hour equipment costs that include a 4-crew pumper, 1 hose and 1 gas suit.

- c. Hourly charges are set out for labour and equipment per resource and are the same for both wires down and hazmat incidents.

Option 3: Fixed charge for all hazmat incidents:

- a. All hazmat incidents incur a flat fixed charge.
 b. The fixed charge includes labour, equipment, administration, billing and overheads, all of which are set based on the average cost per incident.

Option 4: Fixed charge for wires down incidents and call-out fee plus hourly charges for total attendance time:

- a. Wires down incidents incurs a flat fixed charge. The fixed charge is calculated based on the average labour, equipment, administration, billing and overhead costs per incident.
 b. For other hazmat incidents, the charges set out under Option 1 applies.

Table 6.1 shows modelled charges under different options.

Table 6.1 Modelled charges under different options (\$2022-23, ex-GST)

	Unit	Option 1	Option 2	Option 3	Option 4
Call-out fee					
Wires down	Per incident	\$130	\$360	\$650	\$650
Other hazmat	Per incident	\$200	\$510	\$750	\$200
Variable charges				N/A	
Each standard pumper and hazmat pumper (4 crew)	Per hour	\$500	\$500		\$500
Labour	Per hour	\$460	\$460		\$460
Vehicle	Per hour	\$40	\$40		\$40
Each other hazmat vehicles and Mobile Command Centre (2 crew)	Per hour	\$285	\$285		\$285
Labour	Per hour	\$240	\$240		\$240
Vehicle	Per hour	\$45	\$45		\$45
Each special operations vehicle (1 crew)	Per hour	\$150	\$200		\$150
Labour	Per hour	\$115	\$165		\$115
Vehicle	Per hour	\$35	\$35		\$35

Source: IPART analysis.

6.2 Recommended charging option

We assessed these options against the pricing principles we outlined in the Issues Paper and factors we are required to consider by the [Terms of Reference](#). Our assessment of these options is summarised in Appendix A.

6.2.1 Charges under Option 2 satisfy all our pricing principles

Based on our assessment, we consider Option 2 is the most appropriate charging structure for attending hazmat incident attendance as it results in charges that meet all our pricing principles.

- **Cost-reflective:** Our recommended call-out fee reflects the average efficient cost of a hazmat incident attendance less than one hour. For the fixed cost component, we included the average administration, billing and overhead costs per incident that the CIE estimated. For the variable component, we included half hour costs for labour and basic equipment needed for an average response less than one hour. We consider the "half hour" cost is appropriate as the average attendance time for incidents less than one hour is around 30 minutes.
- **Equitable:** Charging for all hazmat incidents, except for few exceptions ensures those who contribute to a hazmat incident pay for the costs of dealing with hazmat incidents.
- **Right incentives:** Charging a small flat fee for incidents less than one hour ensures there is an incentive for electricity network operators to act promptly within an hour to avoid additional hourly charges. Around 74% of wires down incidents and around 83% of all hazmat incidents had less than 1-hour attendance time, so most hazmat incidents would incur a call-out fee only. We consider the recommended call-out fees of \$360 and \$510 are at a reasonable level not to create a strong disincentive for people not to report incidents to avoid a charge.
- **Transparent:** There is transparency as actual charges and associated cost elements are known prior to an incident.
- **Simple:** The recommended charging structure is easy to understand and administer as most hazmat incidents are less than one hour.
- **Flexible:** The recommended charging structure results in flexible charges. While most hazmat incidents had less than 1-hour attendance, there is a non-negligible number of hazmat incidents with a significantly long attendance time. Having variable charges allows FRNSW to recover the costs associated with such long incidents, while the call-out fee covers most hazmat incidents.
- **Consistent:** The recommended charging structure is consistent across different hazmat incidents.

Option 1 is consistent with FRNSW's current charging structure except:

- It has a separate fixed charging component (i.e. call-out fee) to recover administration, billing and other overhead costs.
- All incidents are chargeable regardless of attendance time as opposed to FRNSW's current practice of not charging wires down incidents under 2 hours and other hazmat incidents under one hour (discussed further in Section 6.3).

In our view, Option 1 satisfies most of the pricing principles and is likely to result in the most cost-reflective charges. However, it is likely to increase FRNSW's administrative burden as every hazmat incident attendance will require its own calculation of charges based on attendance time and resources used.

Option 3 and Option 4 do not meet several pricing principles. A fixed charge structure in Option 3 and Option 4 is likely to result in charges that are not cost-reflective. It also does not provide sufficient incentives to reduce the risk of hazmat incidents – in the case of wires down incidents, a fixed charge does not provide electricity networks with incentives to get to the scene early.

6.2.2 Our recommended charges include a call-out fee plus hourly charges

The call-out fee is \$360 for wires down and \$510 for other hazmat incidents

The recommended call-out fee includes the average costs of administration and billing and overhead costs per incident. It also includes half hour costs for an incident less than one hour, which includes a 4-crew pumper, a hose and a gas suit.

We consider the "half hour" cost is appropriate as the average attendance time for incidents less than one hour is around 22 minutes. We included the cost of one 4-crew pumper as hazmat incidents less than one hour required on average around one 4-crew pumper. We allowed additional costs for one hose and one gas suit as an assumption for what additional equipment would be required for a typical response less than one hour.

The call-out fee for hazmat incidents is around \$150 higher than wires down incidents due to higher costs associated with administration and billing for other hazmat incidents.

As discussed in Section 5.2.5, we have updated the efficient overheads to include the costs of the critical systems needed to respond to emergencies (e.g. FRNSW's ESCAD system, Government Radio Network recurrent costs, and the Stay Safe and Keep Operational program recurrent costs) based on FRNSW's feedback on our Draft Report. Including an additional \$36 million per year to account for these costs resulted in higher labour and operating cost corporate overheads from 6.9% to 11.6% of the average attendance cost, or from \$51 per incident to \$75 per incident. This was the key driver of the increase in the final recommended call-out fee from our draft recommendation.

The recommended pumper charges include efficient labour and vehicle costs

Under our recommendation (i.e. Option 2), incidents more than one hour will incur a call-out fee plus additional variable charges depending on the equipment used, including pumper charges.

We recommend separate pumper charges depending on the number of crew required. The recommended pumper charges are the same irrespective of whether it is a standard pumper or a specialised hazmat pumper as the CIE found that the costs do not vary between the 2 types of pumpers.

It is unclear whether FRNSW's current pumper charges include labour costs, and if so, how much labour costs are allocated to each pumper charge. Therefore, while we recommend pumper charges include labour costs, we present the split between labour and vehicle costs to show how much labour costs contribute to each pumper charge.

The vehicle costs include variable vehicle running costs such as fuel and tyres, and fixed costs such as depreciation. Regardless of the number of crew required, the vehicle costs do not vary across different types of pumper. It is the labour costs that contribute to the difference in costs across different types of pumper.

Our final recommended pumper charges are \$10 lower than the draft recommendation due to a minor adjustment in the CIE's analysis.

6.2.3 We recommend some changes to equipment charges

Under our recommendation, incidents more than one hour will incur additional equipment charges such as hose, gas suit, breathing apparatus, etc.

Table 6.2 sets out our final recommended charges for a list of equipment. The charges are the same for wires down incidents and other hazmat incidents. This reflects the CIE's finding that there is little difference in the average cost per resource between them.

These equipment charges include depreciation, annual costs of maintenance and insurance costs in some cases. We used the purchase price and economic life to work out annual depreciation. Annual maintenance costs are estimated to be about 3% of the purchase price, and insurance costs are estimated to be 50% of the maintenance costs. To these costs, we added 10% capital allowance and estimated hourly charges based on estimated time each equipment is in use.

Our final recommendation means some equipment charges would be higher than the current charges, and other charges would remain similar to their current levels or reduce materially in some cases.

Table 6.2 Current and recommended equipment charges (\$2022-23, ex-GST)

Equipment type	Unit	Current	Recommended
Each hazmat delta decontamination shelter	Per hour	\$286	\$285
Each boat (including a trailer and vehicle to tow it)	Per hour	\$286	\$285
Each helicopter	Per hour	\$3,300	\$3,365
Each hose	Per hour	\$55	\$35
Each fully encapsulated gas suit	Per hour	\$275	\$100
Each spillage suit	Per hour	\$55	\$10
Each self-contained breathing apparatus	Per hour	\$55	\$45
Each standard gas detector	Per hour	\$55	\$85
Each unit of specialised detection equipment	Per hour	\$110	\$85

Note: Half of the hourly charge applies for each half hour (or part there-of) of use.

Source: FB Regulation, cl 45 and Schedule 1.

Based on the last 5 years of incident data, a couple of other types of equipment, not listed in Schedule 1 of the FB Regulation, were used regularly in hazmat responses – trailer chemical decontamination foam and diaphragm pump. The CIE estimated their efficient costs (see Table 5.4) and we took them into account in estimating the recommended charge for specialised detection equipment. We do not recommend specific charges for these 2 types of equipment. Instead, we recommend FRNSW be provided with flexibility to charge at cost for the use of equipment that is not listed in the FB Regulation (see Section 6.3).

As for consumables, FRNSW currently passes through direct costs of consumables plus 10% handling costs. We recommend FRNSW continue charging consumables at cost plus 10% handling costs.

Box 6.1 shows 2 examples of how our recommended charges would apply to a wires down incident and other hazmat incident.

Box 6.1 Hazmat charging case studies

Scenario 1 Wires down incident

A call comes in reporting electricity wires down following a traffic accident. Two 4-crew pumpers and a 2-crew hazmat vehicle are dispatched at 6pm. Pumper 1 stays on the scene until 7:35pm and is available for dispatch to other incidents at 7:40 pm. Total time on the incident is one hour and 40 minutes. Pumper 2 and the hazmat tanker leave the scene about 10 minutes after arriving and have returned to base by 6.15pm. Total time for both of these vehicles is 15 minutes.

Table 6.3 Scenario 1 total hazmat charging

Charge type	Charge (\$)	Note
Call-out fee	\$360	Charge for all 3 vehicles for the first hour of the incident
Variable charge		
Pumper 1	\$500	Charge for 40 minutes at the hourly rate (charged in 30-minute blocks)
Pumper 2	0	Left the scene within one hour
Hazmat tanker	0	Left the scene within one hour
Total	\$860	

Scenario 2 Other hazmat incident

A call comes in reporting a gas leak. One 4-crew pumper is dispatched at 10am, arrives on the scene 5 minutes later and remains there for one hour and 15 minutes. The pumper returns to base in 5 minutes. Total time on the incident is one hour and 25 minutes.

Box 6.1 Hazmat charging case studies

A 4-crew tanker is dispatched at 10:30 am to provide assistance, arrives on the scene 5 minutes later and remains there until 11:20 am. The tanker returns to base in 5 minutes. Although the tanker spends less than an hour on the incident in total, 25 minutes of this time elapses after the first hour of the incident.

Table 6.4 Scenario 2 total hazmat charging

Charge type	Charge (\$)	Note
Call-out fee	\$510	Charge for both vehicles for the first hour of the incident
Variable charge		
Pumper	\$250	Charge for 25 minutes at half the hourly rate (charged in 30-minute blocks)
Tanker	\$250	Charge for 25 minutes at half the hourly rate (charged in 30-minute blocks)
Total	\$1,010	

Source: IPART analysis.

We note that the final recommended charges for hose, gas suit, breathing apparatus, gas detector and specialised detection equipment have changed compared to the draft recommended charges. FRNSW currently charges the same amount for these types of equipment. In line with this, we averaged the efficient costs of these types of equipment and recommended a single charge of \$65 in our Draft Report.²²

However, FRNSW did not agree with consolidating equipment into bundles.²³ Given that equipment costs can vary and existing equipment may be replaced with new equipment, we consider it would be more reasonable to have equipment charges set individually. We have therefore set the recommended charges for hose, gas suit and breathing apparatus separately at their efficient costs.

For a standard gas detector and specialised detection equipment, the CIE found that the purchase cost of specialised detection equipment is substantially higher than that of a standard gas detector. But the efficient costs of these types of equipment per hour are similar because of specialised detection equipment having a much higher level of utilisation with the difference being \$11 per hour. We therefore recommend the same charge for a standard gas detector and specialised detection equipment based on their average efficient cost.

6.2.4 Our recommended charges do not include training and standby costs

Our recommended charges for attending hazmat incidents do not include training and standby costs.

- All FRNSW crew receive a basic level of hazmat training, but this level of training is required for the majority of FRNSW's core services. Therefore, we consider it is not reasonable to allocate training costs to hazmat incidents.
- We have not allocated FRNSW's standby cost to the hazmat charge as FRNSW's assets are shared between its core and non-core activities. When responding to incidents, FRNSW assigns the closest available pumper/crew to the incident. For example, specialised hazmat pumpers can be used to respond to fires and standard pumpers can be sent to respond to hazmat incidents. In the 2019-20 financial year, 48% of hazmat responses were from 'standard pumpers'.²⁴

6.3 Other recommendations on hazmat charging

6.3.1 FRNSW remove the 1-2 hour thresholds for chargeable incidents

We consider that a key element in determining hazmat charges is to increase the level of cost recovery by increasing the number of charged incidents. Currently, only a small number of incidents are charged. This is because FRNSW does not charge for hazmat incidents under one hour and for wires down incidents under 2 hours. We understand that these time thresholds were based on an assessment that the administrative cost of raising an invoice would outweigh the value of the claim,²⁵ although this rationale is not set out in FRNSW's Hazardous Material Incidents Charging Policy.

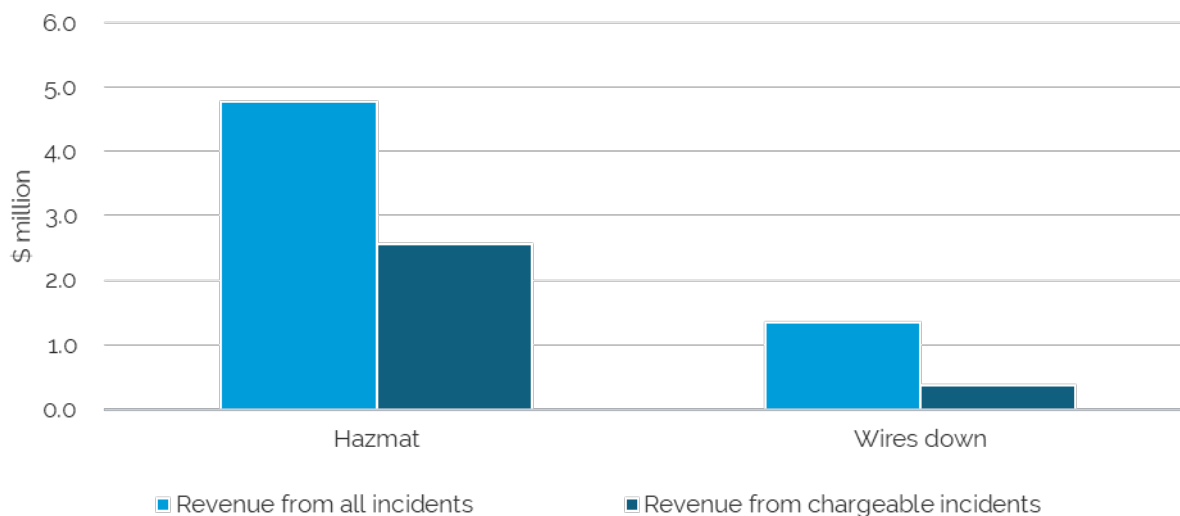
Currently, most incidents fall in the non-chargeable category, with the average attendance time less than 1 to 2 hours. About 83% of hazmat incidents were under one hour and about 92% of wires down incidents were under 2 hours.

Consistent with our draft recommendation, we recommend that FRNSW charge incidents regardless of attendance time. We consider that it is appropriate to recover the efficient administrative cost of raising an invoice through those charges. We found that forgone revenue due to the existing threshold time is estimated to be \$3.2 million (based on the current charge) annually. Without the thresholds for charging, FRNSW's revenue is estimated to be more than double the current revenue.¹

Where FRNSW has operational policy reasons for not charging for incidents, such as not disincentivising people from seeking FRNSW assistance for domestic hazmat incidents, we consider it should continue to not charge. We consider the costs associated with these non-chargeable incidents should be met from the Emergency Services Levy, rather than recovered from charges for chargeable hazmat incidents.

¹ FRNSW does not charge for certain hazmat incidents such as domestic or orphan waste incidents. Since we do not have the exact number of these non-chargeable incidents, we have assumed all hazmat incidents to be chargeable. Due to this, the estimated revenue without the thresholds for charging is likely to be overestimated.

Figure 6.1 Estimated revenue: all hazmat incidents vs chargeable incidents



Source: FRNSW and IPART analysis.

In its submission to our Draft Report, FRNSW indicated that the recommended increase in number of chargeable incidents means more administrative support staff would be needed and their internal system would need to be updated to reflect the change in the charges.²⁶

Under our recommendation the number of chargeable incidents would be significantly higher, and this would lead to higher admin costs. It would be inefficient to introduce a charge where the administrative cost exceeds the estimated revenue or represents a significant proportion of the cost of providing the service. However, this is not the case for hazmat charging. The CIE estimated the corporate overheads which include administration cost to be \$73 to \$75 per incident and this represents around 12% of the total cost of attending hazmat incidents. Most of the costs of attending hazmat incidents relate to labour costs (i.e. crew attending the scene).

The recommended call-out fee and vehicle charges include the efficient corporate overheads per incident and per truck. So, the total corporate overheads to be recovered from hazmat attendance increases in line with the number of chargeable hazmat incidents and the number of vehicles used. We consider this would allow FRNSW to recover additional costs associated with sourcing extra admin staff and updating internal systems.

Some incidents may involve longer administration times than average, and the administrative charge may not fully recover the cost for an incident with a short duration. However, as noted in the CIE's report, on average across all chargeable services, the administrative charge is cost-reflective.²⁷

DNSPs also raised several concerns in response to our Draft Report, specifically regarding the removal of the 2-hour threshold for no charging and the introduction of the call-out fee for incidents less than or equal to one hour in duration. We summarise their submissions in Section 6.4 and provide our response with supporting analysis.

Recommendation

3. FRNSW remove the current time-based thresholds for chargeable incidents, whereby wires down incidents under 2 hours are not charged, and other hazmat incidents under one hour are not charged.

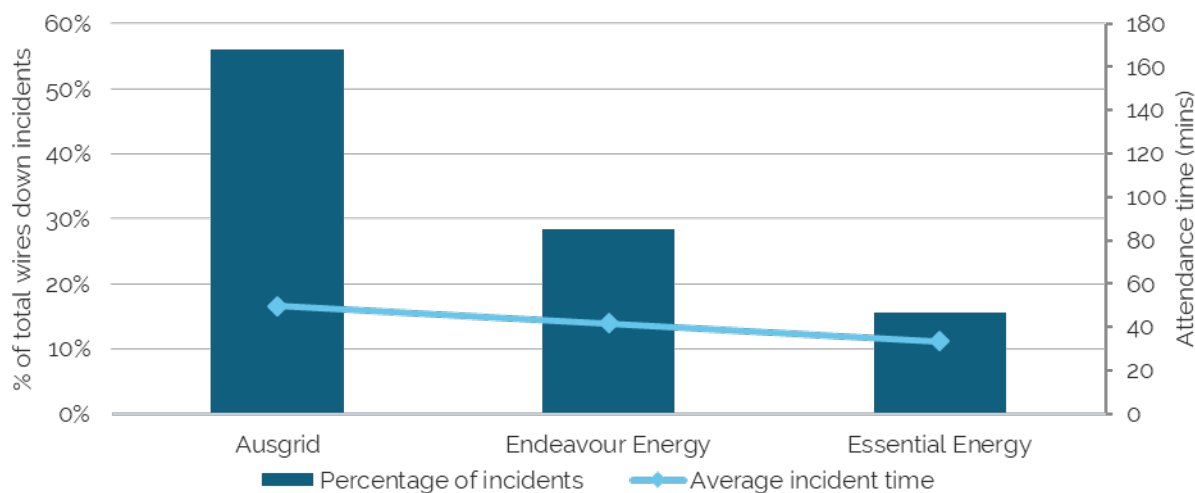
6.3.2 FRNSW charge all Distribution Network Service Providers (DNSPs)

Wires down incidents were included in FRNSW’s Hazardous Material Incidents Charging Policy only relatively recently, around 2014-15.²⁸ FRNSW has MOUs with Ausgrid and Endeavour Energy for the management of wires down hazmat incidents. FRNSW charges for wires down incidents that extend beyond 2 hours to recover costs for all resources involved for standby purposes, including the costs incurred in the first 2 hours.

FRNSW does not charge for incidents under 2 hours and does not charge Essential Energy.

Figure 6.2 shows FRNSW’s wires down attendance by network area. Wires down incidents FRNSW attended for Essential Energy represent only around 16% of total wires down incidents. The average attendance time for Essential Energy is around 30 mins and is comparable to the other two networks which averages between 40 to 50 mins.

Figure 6.2 Wires down incidents by network area and average attendance time



Note: Attendance time excludes non-FRNSW trucks.
Source: FRNSW

FRNSW decided not to charge Essential Energy while its MOU with Essential Energy was being finalised in May 2016. It continued to not charge Essential Energy even after the MOU was finalised in February 2017.

The number of wires down incidents for Essential Energy is small compared to those for Ausgrid and Endeavour Energy, so charging Essential Energy would not significantly increase FRNSW’s revenue. However, in principle we consider FRNSW should treat all DNSPs on a consistent basis. Therefore, in line with our draft recommendation, we recommend FRNSW charge Essential Energy to recover costs for all resources involved for attending wires down incidents.

Essential Energy submitted that FRNSW charging Essential Energy would not be administratively efficient for either Essential Energy or FRNSW. Essential Energy commented that it will need to update various systems to ensure the relevant data is captured correctly, and when bills are received it will need to be validated and processed to payment, and that this would be the case for FRNSW as well.²⁹

Firstly, we agree with Essential Energy that it would be inefficient to introduce a charge where the admin cost exceeds the estimated revenue or represents a significant proportion of the cost of providing the service. However, the CIE estimated the admin cost to be \$76 per incident and this represents around 12% of the total cost of attending wires down incidents. Most of the costs of attending wires down incidents relate to labour costs.

As for the costs that would be incurred by Essential Energy, we consider the cost of responding to changes in FRNSW's charging policy is part of business operating costs and is not a valid reason why FRNSW should not charge it for wires down attendance. We also consider there may be opportunities for DNSPs and FRNSW to work together to streamline billing processes to reduce administrative burden.

For FRNSW, as noted above some incidents may involve longer administration times than average, and there may be cases where the administrative charge may not fully recover the cost particularly if an incident lasts only for a short period of time. However, on average across all chargeable services, the administrative cost included in the recommended call-out fee and vehicle charge is cost-reflective and should allow FRNSW to recover costs in line with an increase in the number of chargeable incidents. So, the total recoverable corporate overheads increase in line with the number of chargeable hazmat incidents and the number of vehicles used, which would enable FRNSW to absorb additional costs associated with sourcing extra admin staff and updating internal systems.

Recommendation



4. FRNSW charge all distribution network service providers (DNSPs) for wires down incident attendance.

6.3.3 FRNSW be provided with flexibility to charge for the use of equipment that is not listed in the FB Regulation

There is a need to improve flexibility to vary equipment lists. FRNSW has little flexibility in varying a list of standard equipment items and their costs that are specified in the FB Regulation. FRNSW advised that the relevant Schedule in the Regulation is not comprehensive. There are some items that are considered as equipment (not consumables) that are sometimes used but don't appear in the Schedule, for example, various pumps used to decant fuel and decontaminations showers. FRNSW currently add them manually.

In our Draft Report, we recommended that the FB Regulation be amended to provide FRNSW with flexibility to charge for the use of equipment at cost that is not listed in the FB Regulation.³⁰ We also recommended FRNSW consolidate a list of consumables wherever possible.³¹

FRNSW submitted that it considers equipment charges should not be included in the FB Regulation as they can fluctuate and vary. Also, FRNSW did not consider there is any benefit in bundling consumables as the list of consumables is reviewed regularly to ensure efficiency and currency.³²

We agree with FRNSW that equipment and consumable items and charges can change. For this reason, we consider the FB Regulation should be amended to provide FRNSW with flexibility to charge for the use of equipment that is not listed in the FB Regulation at cost.

For types of equipment that have been used previously or continue to be used, we consider FRNSW should charge at efficient costs and these should be set out in the FB Regulation as FRNSW is the monopoly provider of hazmat service. Under our recommendation, those equipment costs will be updated each year using the ABS WPI for public sector wages and can be reviewed every 5 years when the FB Regulation is remade.

We agree with FRNSW that there is no need to consolidate consumables into bundles. Given that FRNSW charges consumables at cost and regularly reviews its list of consumables, we consider requiring it to consolidate a list of consumables would give rise to unnecessary administrative costs that could be avoided. We therefore no longer recommend that FRNSW consolidate a list of consumables.

Recommendation



5. FRNSW be provided with flexibility to charge at cost for the use of equipment that is not listed in the FB Regulation.

6.4 Response to feedback from DNSPs on our Draft Report

In response to our Draft Report, DNSPs raised several concerns regarding the removal of the 2-hour threshold for no charging and the introduction of the call out fee for incidents less than or equal to one hour in duration. We summarise DNSPs' submissions and provide our response below.

6.4.1 DNSPs are concerned about customer impact

Ausgrid and Endeavour Energy submitted that our draft recommended charges result in a significant increase in the hazmat charges imposed on network businesses. They noted any change in costs would be passed onto customers and customers may end up paying twice for the same service (via FRNSW's charging and the national energy framework cost recovery rules).³³

Ausgrid and Endeavour Energy noted that they were not able to validate the financial impact and recommended IPART investigate the impact on network businesses further – they noted that the final decision should be based on a reliable estimate of the potential impacts at a business level as it is necessary for them to develop robust operating cost forecasts for the FY25-29 period.³⁴

Essential Energy also commented on customer impact. They estimated that the annual charge would be between \$500,000 and \$1.2 million and noted that IPART should consider customer impact as any increase in operating costs gets added directly onto customers network charges.³⁵

As Table 6.5 shows, based on our final recommended charges, we estimate that

- Ausgrid would pay about \$876,000 per year
- Endeavour Energy would pay about \$364,000 per year
- Essential Energy would pay about \$156,000 per year.²

Network use of system (NUoS) relates to utilisation of the total electricity network (both transmission and distribution) and total NUoS charges represent the total revenue requirement for a network (or total network charges for customers). As at 2021, the total NUoS ranges between \$1.1 billion and \$1.9 billion across the three DNSPs in NSW.

The estimated increase in hazmat charges account for only around 0.01% to 0.04% of a DNSP's NUoS. We do not consider these increases would result in a substantial increase in network charges.

Table 6.5 Impact on electricity network businesses of recommended wires down charges (\$'000, \$2022-23)

	Ausgrid	Endeavour Energy	Essential Energy	Total
Current charges (if all charged)	202	71	20	294
IPART recommended charges				
Call-out charges (\$360 per incident)	604	260	117	981
Hourly charges (after 1st hour)	272	104	38	415
Total	876	364	156	1,396
Increase (%)	333%	413%	667%	376%
Impact on network use of system charges (NUoS)				
Total network use of system charges (NUoS) ^a	1,960,900	1,141,100	1,361,500	4,463,500
Current charges as a proportion of NUoS	0.01%	0.01%	0.00%	0.01%
Recommended charges as a proportion of NUoS (%)	0.04%	0.03%	0.01%	0.03%

a. NUoS revenue has been inflated from \$2022-22 to \$2022-23 assuming 2.5% inflation.

Source: Ausgrid, Pricing Proposal for the financial year ending June 2022, March 2021, p 7; Endeavour Energy, Pricing Proposal 1 July 2021 to 30 June 2022, pp 61-66; Essential Energy, 2022 Annual Network Pricing Report, April 2021, p 26; IPART analysis.

We note that Essential Energy's methodology used to calculate the financial impact is different from our methodology. As Essential Energy did not have FRNSW's incident level data, it had to rely on the total number of hazmat incidents reported in FRNSW's annual report. It also made several assumptions about an average incident duration being 2 hours and that around 20% of those incidents were in the Essential Energy network.

² We note that these hazmat charges are likely to be overestimated. Due to data limitation, we assumed every wires down incident is chargeable although some incidents involve communication wires or are false alarms that would not be charged to DNSPs.

We have data for 5 years on every fire truck that attended a wires down incident from 2016-17 to 2020-21. The data includes dates, places, times, time spent on the incident, type of equipment, etc. We estimated the financial impacts for all DNSPs based on this information and assuming that all incidents are charged.

We also note that based on this data, wires down incidents in Essential Energy's network area account for around 12% of all wires down incidents, and that close to 80% of hazmat incidents are less than or equal to one hour in duration (see Table 6.6).

Table 6.6 Average number of wires down incidents attended by FRNSW per year

	Ausgrid	Endeavour Energy	Essential Energy	Total
Total incidents	1,679	721	326	2,725
Incidents one hour or less	76%	77%	78%	77%
Incidents between 1 and 2 hours	17%	17%	18%	17%
Incidents longer than 2 hours	7%	6%	4%	6%

Regardless of customer impact, we do not agree that the costs associated with FRNSW's attendance at wires down incidents should be paid via the Emergency Services Levy (and thus taxpayers, property owners and insured property owners). Based on the impactor pays principle, we consider those who create the costs or the need to incur the costs should pay the costs. The impactor pays principle helps to ensure prices are cost-reflective and therefore promotes economically efficient outcomes.

We support taxpayer funding where risk creators are not clearly identifiable or where it is not administratively efficient or practical to charge impactors. However, this is not the case for wires down incidents. FRNSW is able to clearly identify the pole owner and as discussed above administrative costs are not a substantial cost of FRNSW's attendance at wires down incidents.

6.4.2 DNSPs are concerned that the proposed hazmat charges are not equitable for networks

Essential Energy submitted that there are wires down incidents which are not the responsibility of DNSPs (e.g. telco wires, privately owned assets, etc) and had a concern as to how charging will work in major storm and disaster events where incidents may take some days to be corrected.³⁶ Also, Endeavour Energy and Ausgrid submitted that many wires down incidents are caused by third parties and it is unclear whether FRNSW would levy fees on them.³⁷

As per MOUs between FRNSW and DNSPs, FRNSW charges for wires down incidents due to, among others:

- severe weather events
- bush fires
- motor vehicle accidents
- falling trees and branches
- third party contact
- structural collapse

- network infrastructure or asset failure.³⁸

Currently, FRNSW only charges DNSPs for “electricity” wires down incidents and does not charge for wires down relating to telco wires or privately owned assets (FRNSW currently does not charge telecommunication providers for their wires down incidents). FRNSW utilises the Pole ID App to determine which DNSP is responsible for the pole in question for each incident when billing for wires down incidents. When FRNSW attends incidents involving telecommunications wires incidents, there is no identifiable pole ID and the incident is recorded as relating to telecommunication wires. FRNSW commented that their billing is highly accurate, and they have had no disputes with DNSPs over a DNSP receiving an invoice for an asset that it was not responsible for.

FRNSW cannot charge for wires down incidents where the primary response is for a fire³⁹ and it has a policy not to charge where the primary response is for a rescue operation.⁴⁰ But if a wires down incident is caused by a motor vehicle accident and if FRNSW is in attendance and not operating in the capacity of undertaking firefighting or rescue operations, and is simply rendering the wires down safe until the arrival of the relevant DNSP, then it would charge the DNSP for the attendance.

We think it is equitable that DNSPs which require FRNSW’s attendance at wires down incidents pay for the costs of the service regardless of whether incidents were caused by a third party as there is an identifiable impactor who requires FRNSW’s attendance (ie, DNSPs). DNSPs are the owner of the assets (i.e. poles and wires) so ultimately it is their responsibility to inspect and maintain their assets, including undertaking of emergency works on their network assets and associated infrastructure.

Essential Energy advised that it bills the responsible party for wires down incidents caused by motor vehicle accidents, noting that it often takes extra administrative efforts for billing and invoice processing. For wires down incidents due to severe weather etc, Essential Energy said the costs are not covered by insurance and they absorb the costs as part of their operating costs.

We found that the incident type or stop code recorded for FRNSW’s attendance at wires down incident is too broad and does not contain information that can identify the cause of a wires down incident. Given that some hazmat charges that network businesses incur could be passed onto a third party, we recommend FRNSW record the cause of incident in line with the chargeable causes of an incident set out in the MOUs between Fire and Rescue NSW and DNSPs.

Recommendation



6. FRNSW record the cause of a wires down incident in line with the chargeable causes of an incident set out in the memoranda of understanding (MOUs) between Fire and Rescue NSW and DNSPs

6.4.3 DNSPs submitted that the proposed hazmat charges are not consistent

Ausgrid and Endeavour Energy submitted that there needs to be consistency between different essential service providers. Jemena and Sydney Water are treated differently, and the impacts of the proposed hazmat charges would not be as significant or not impact them at all. Ausgrid and Endeavour Energy also submitted that our draft recommendation implies essential service providers such as energy networks are treated the same as non-essential service providers. If network businesses are treated the same as non-essential services, then the ESL should be reviewed to ensure customers are not charged twice for the same service.⁴¹

As for charging arrangements between FRNSW and other service providers, in principle we support the impactor pays principle where those who create the costs or the need to incur the costs should pay the costs. Hazmat incidents that affect other essential service providers such as Jemena and Sydney Water are chargeable based on our recommended charges for "other hazmat incidents".

The ESL is about funding FRNSW's core services of attending fires within its fire districts and rescue operations and it is outside the scope of this review.

6.4.4 DNSPs submitted that proposed hazmat charges are not efficient and do not promote risk mitigation

Ausgrid and Endeavour Energy submitted that the proposed hazmat charges are not efficient and would not promote risk mitigation. They noted the call-out fee would form the majority of the charge (as most incidents are less than one hour) so there would be little incentive for networks to get to wires down incidents faster. Also, it's unclear whether charging networks would provide any incentive to improve risk mitigation as many of wires down incidents are caused by third party or acts of nature.⁴²

We consider the current 2-hour threshold for not charging does not provide the right incentive for DNSPs to respond quickly as they effectively have 2 hours to respond without being charged. However, every time a fire truck or trucks respond to any event including a wires down incident that means those appliances are no longer available to respond to another emergency. We consider an appropriate charging structure should be in place to provide electricity network operators with the right incentive to act promptly.

Around 77% of wires down incidents have 1-hour or less than 1-hour attendance time, so most wires down incidents would incur a call out fee only. We consider the recommended call-out fees of \$360 is reasonable and is likely to provide DNSPs with an incentive to act promptly within an hour without significant financial burden and at the same time enable cost recovery for FRNSW.

7 Impact of our recommendations

The last step in making our recommended charges is to consider the impact of our recommendations on customers and FRNSW.

Customer impact would vary depending on the type of hazmat incidents, which determine attendance time and resources used. Clearly bills for both wires down and other hazmat incidents would increase for short incidents that are currently uncharged. Table 7.1 sets out some hypothetical examples and shows that longer duration incidents may have slightly lower bills than currently.

Table 7.1 Estimated bills for various hazmat incidents (\$2022-23, ex-GST)

Incident	Attendance time	Resourced used	Wires down		Other hazmat	
			Current	Recommended	Current	Recommended
Incident 1	30 mins	1 4-crew pumper	\$0	\$360	\$0	\$510
Incident 2	1.5 hrs	1 4-crew pumper	\$0	\$610	\$635	\$760
Incident 3	3.5 hrs	1 4-crew pumper	\$1,481	\$1,610	\$1,481	\$1,760
Incident 4	3.5 hrs	2 4-crew pumpers, 1 decontamination shelter (or other 2-crew vehicle)	N/A ^a	N/A ^a	\$3,962	\$3,723
Incident 5	8.5 hrs	3 4-crew pumpers, 1 decontamination shelter, 1 special operations response vehicle (i.e. 2 x 2-crew vehicles)	N/A ^a	N/A ^a	\$15,649	\$16,035

Note: Numbers have been rounded to the nearest whole dollar.

^a FRNSW's response to wires down predominantly focuses on making the area safe before the relevant DNSP resolves the issues, so do not use equipment other than pumpers.

In terms of revenue impact on FRNSW, we estimate that our recommended charges would result in an increase in its revenue from all hazmat attendance by about \$6.3 million. Specifically, FRNSW is expected to have additional revenue of:

- \$1.2 million from attending wires down incidents
- \$5.1 million from attending other hazmat incidents.

Table 7.2 Estimated annual revenue under current and recommended charges (\$2022-23, ex-GST)

	Estimated revenue based on recommended charges ^b		
	Current (\$m) ^a	(\$m)	Difference (\$m)
Wires Down	0.2	1.4	1.2
Other hazmat	1.1	6.2	5.1
Total	1.3	7.6	6.3

a. Actual revenues as reported by FRNSW

b. Revenues are calculated using recommended hazmat charges and assuming all hazmat incidents are chargeable.

A Assessment of hazmat charging options against pricing principles

	Cost-reflective	Equitable	Right incentives	Transparent	Simple	Flexible	Consistent
<p>Option 1</p> <p>Call-out fee plus hourly charges for total attendance time</p>	<p>✓</p> <p>Call-out fee is set to capture the average fixed cost of an incident. Most cost-reflective as all incidents are charged at efficient cost</p>	<p>✓</p> <p>Those who contribute to a hazmat incident pay for the costs of dealing with hazmat incidents</p>	<p>✓</p> <p>Provides appropriate incentives to reduce risk of hazmat incidents</p>	<p>✓</p> <p>Actual charge known</p>	<p>✗</p> <p>Easy to understand but longer to process charging as every incident will need to be looked at.</p>	<p>✓</p> <p>Charging structure can be applied to all incidents</p>	<p>✓</p> <p>Charging structure is consistent across different hazmat incidents</p>
<p>Option 2</p> <p>Call-out fee for incidents <= one hour & Call-out fee plus hourly charges for incidents > one hour</p>	<p>✓</p> <p>Call-out fee appropriately reflects the average cost as most incidents are less than one hour</p>	<p>✓</p> <p>Those who contribute to a hazmat incident pay for the costs of dealing with hazmat incidents</p>	<p>✓</p> <p>Provides appropriate incentives to reduce risk of hazmat incidents</p>	<p>✓</p> <p>Actual charge known</p>	<p>✓</p> <p>Easy to understand and administer in terms of charging as most hazmat incidents are less than one hour</p>	<p>✓</p> <p>Charging structure can be applied to all incidents</p>	<p>✓</p> <p>Charging structure is consistent across different hazmat incidents</p>
<p>Option 3</p> <p>Fixed charge for both wires down and other hazmat incidents</p>	<p>✗</p> <p>Fixed charge is not suitable given diversity of hazmat incidents. Some hazmat incidents can take a long time and resourcing requirement can vary significantly across incidents</p>	<p>✓</p> <p>Those who contribute to a hazmat incident pay for the costs of dealing with hazmat incidents</p>	<p>✗</p> <p>May not provide strong incentives to arrive at the scene early for network operators</p>	<p>✓</p> <p>Actual charge known</p>	<p>✓</p> <p>Easy to understand and administer</p>	<p>✗</p> <p>Fixed charge does not provide flexibility</p>	<p>✓</p> <p>Charging structure is consistent across different hazmat incidents</p>
<p>Option 4</p> <p>Fixed charge for wires down; Option 1 for other hazmat incidents</p>	<p>✓</p> <p>Most wires down incidents are less than 2 hours and their resourcing requirement does not vary</p>	<p>✓</p> <p>Those who contribute to a hazmat incident pay for the costs of dealing with hazmat incidents</p>	<p>✗</p> <p>May not provide strong incentives to arrive at the scene early</p>	<p>✓</p> <p>Actual charge known</p>	<p>✗</p> <p>Two different structures mean it's not easy to understand or administer</p>	<p>✗</p> <p>Fixed charge does not provide flexibility</p>	<p>✗</p> <p>Different charging structure between two hazmat categories</p>

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- ¹ IPART, Draft charges for Fire and Rescue NSW's hazardous material incident attendance, Information Paper, December 2021, p 4; p 15.
- ² IPART, Draft charges for Fire and Rescue NSW's hazardous material incident attendance, Information Paper, December 2021, pp 4-5.
- ³ *Fire and Rescue NSW Act 1989*, s 3(1) definition of "hazardous material incident".
- ⁴ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, p 58.
- ⁵ Australian Radiation Protection and Nuclear Safety Agency, *Radiation Protection Series No. 13 - Code of Practice and Safety Guide for Safe Use of Fixed Radiation Gauges*, 2007 (updated January 2015), s 3.1 (FRNSW is the fire authority for the purposes of that section).
- ⁶ *Work Health and safety Regulation 2017*, cl. 361 and 557; *Explosives Regulation 2013*, cl 90.
- ⁷ *Fire and Rescue NSW Act 1989*, s40(4A).
- ⁸ *Fire and Rescue NSW Act 1989*, s40(4C).
- ⁹ *Fire Brigades Regulation 2014*, cl 45 and Schedule 1.
- ¹⁰ Legislative Assembly [Hansard](#) – 10 November 1993, Fire Brigades (Hazardous Materials) Bill 1993, second reading speech.
- ¹¹ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, p 62.
- ¹² The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, p 61.
- ¹³ IPART, Draft charges for Fire and Rescue NSW's hazardous material incident attendance, Information Paper, December 2021, p 12.
- ¹⁴ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, p 62.
- ¹⁵ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, p 63.
- ¹⁶ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, p 63.
- ¹⁷ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, pp 64-65.
- ¹⁸ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, p 63.
- ¹⁹ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, pp 64-65.
- ²⁰ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, p 65.
- ²¹ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Draft Report, 14 December 2021, p 65.
- ²² IPART, Draft charges for Fire and Rescue NSW's hazardous material incident attendance, Information Paper, December 2021, pp 4-5.
- ²³ FRNSW, [submission to IPART Draft Report](#), 15 February 2022, p 5.
- ²⁴ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, pp 66-67.
- ²⁵ Legislative Assembly [Hansard](#) – 10 November 1993, Fire Brigades (Hazardous Materials) Bill 1993, second reading speech
- ²⁶ FRNSW, [submission to IPART Draft Report](#), 15 February 2022, pp 4-5.
- ²⁷ The CIE, Efficient operating costs of providing Fire and Rescue NSW's services, Final Report, 10 March 2022, p 65
- ²⁸ FRNSW, [Hazardous Material Incidents Charging Policy](#) (version 07 – March 2020).
- ²⁹ Essential Energy, [submission to IPART Draft Report](#), 8 February 2022, p 1.
- ³⁰ IPART, Draft charges for Fire and Rescue NSW's hazardous material incident attendance, Information Paper, December 2021, pp 23-24.
- ³¹ IPART, Draft charges for Fire and Rescue NSW's hazardous material incident attendance, Information Paper, December 2021, p 24.
- ³² FRNSW, [submission to IPART Draft Report](#), 15 February 2022, p 5.
- ³³ Ausgrid and Endeavour Energy, [submission to IPART Draft Report](#), 8 February 2022, pp 1-2.
- ³⁴ Ausgrid and Endeavour Energy, [submission to IPART Draft Report](#), 8 February 2022, p 3.
- ³⁵ Essential Energy, [submission to IPART Draft Report](#), 8 February 2022, p 1.
- ³⁶ Essential Energy, [submission to IPART Draft Report](#), 8 February 2022, pp 1-2.
- ³⁷ Ausgrid and Endeavour Energy, [submission to IPART Draft Report](#), 8 February 2022, p 2.
- ³⁸ Memorandum of Understanding between Fire & Rescue NSW and Ausgrid, May 2021; Memorandum of Understanding between Fire & Rescue NSW and Endeavour Energy, August 2019; Memorandum of Understanding between Fire & Rescue NSW and Essential Energy, February 2017.
- ³⁹ *Fire and Rescue Act 1989*, section 40(4C).
- ⁴⁰ FRNSW, [Hazardous Material Incidents Charging Policy](#), version 07 – March 2020.
- ⁴¹ Ausgrid and Endeavour Energy, [submission to IPART Draft Report](#), 8 February 2022, pp 1-2.
- ⁴² Ausgrid and Endeavour Energy, [submission to IPART Draft Report](#), 8 February 2022, pp 2-3.