

Draft cost recovery implementation statement

Fees for activities under the Space
(Launches and Returns) Act 2018
2019-2020

Comments due: 13 December, 2018

<https://consult.industry.gov.au/space/cost-recovery-implementation-statement>

Contents

Introduction	3
Purpose of the CRIS.....	3
Description of the regulatory charging activity.....	3
Policy and statutory authority to cost recover	4
Australian Government policy approval to cost recover the regulatory activity.....	4
Statutory authority to charge	5
Cost recovery model	5
Outputs and business processes of the regulatory charging activity	5
Costs of the regulatory charging activity	6
Design of regulatory charges.....	8
Risk assessment	10
Stakeholder engagement	10
Financial estimates.....	11
Financial performance.....	11
Non-financial performance	12
Key forward dates and events.....	12
CRIS approval and change register	12

Introduction

Cost recovery involves government entities charging individuals or non-government organisations some or all of the efficient costs of a regulatory activity. These costs may include goods, services or regulation, or a combination of them. The Australian Government Charging Framework (AGCF), which incorporates the Australian Government Cost Recovery Guidelines (the AGCRG) ¹, sets out the framework under which government entities design, implement and review regulatory charging activities.

Purpose of the cost recovery implementation statement

A cost recovery implementation statement (CRIS) is a mandatory requirement for all cost recovered activities under the AGCRG. This draft CRIS sets out how the Australian Space Agency (the Agency) proposes to implement cost recovery charges for applications under the *Space (Launches and Returns) Act 2018* (the 2018 Act).

The draft CRIS discusses the estimated costs to conduct assessment of applications, estimates of demand for approvals and two potential charging models (full and partial cost recovery). The purpose of the CRIS is to seek information from the Australian space sector to support the Government's consideration on an appropriate charging model. Following a policy decision on charging, rules related to fees will be drafted. Public consultation on the draft rules will occur prior to their finalisation.

The Agency will maintain a CRIS until the activity or cost recovery for the activity has been discontinued.

Description of the regulatory charging activity

The activity that is proposed to be cost recovered is the assessment of applications for an Australian national to conduct certain space activities (in Australia or overseas) or high power rocket activities in Australia.

To ensure that civil space activities do not jeopardise Australian interests, the 2018 Act allows for certain types of space activities to be authorised by the Minister.² These interests include public safety, property, the environment, Australia's security and international relations.

The legislation will ensure that a reasonable balance is achieved between:

- removing barriers to participation in space activities and encouraging innovation and entrepreneurship in the space industry
- the safety of space activities, and the risk of damage to persons or property as a result of space activities
- implementing certain obligations under the UN space treaties.³

A summary of the authorisations is provided below.

- Launch facility licence – for operating a space launch facility in Australia.
- Australian launch permit - to conduct a space launch from Australia.
- Australian high power rocket permit – to conduct the launch of a rocket that does not reach space but is considered a high power rocket.
- Overseas payload permit – for Australian payloads being launched overseas.
- Return authorisation – for the return of an Australian space object outside of Australia, or the return of a space object to Australia.

¹ The AGCF and the AGCRG are available on the Department of Finance website (www.finance.gov.au).

² Under Section 104 of the 2018 Act, the Minister may delegate powers under the Act (for example authorising space activities) to a suitably qualified person.

³ The UN space treaties defined in Section 8 of the 2018 Act.

- Authorisation certificate – for authorisations where the activity may otherwise be prohibited by the 2018 Act.

The Australian Government’s overarching cost recovery policy is that, where appropriate, non-government recipients of specific government activities should be charged some or all of the costs of those activities.⁴

The activities are considered appropriate for cost recovery, in accordance with Section 11 of the AGCRG, as outlined below.

- The activity involves administering a regulatory framework for the assessment of space and high power rocket activities which can only be authorised by the Australian Government.
- The costs would be charged to the stakeholders seeking approvals.
- It is efficient to cost recover the costs of the activity.⁵

Another key consideration for whether cost recovery is appropriate is the impact of cost recovery on competition, innovation or the financial viability of those who would pay the charges. The *Design of regulatory charges* section (below) seeks additional information to help inform the Agency of these impacts.

Stakeholders that seek approvals have historically been large commercial telecommunications satellite operators. Recent applications under the *Space Activities Act 1998* (the 1998 Act) have been from small businesses or scientific/educational organisations.

Apart from stakeholders seeking approvals there was only one other group of key stakeholders identified in relation to the regulatory charging activity: technical experts that may contract to the Agency to assist with complex assessments.

Policy and statutory authority to cost recover

Australian Government policy approval to cost recover the regulatory activity

Policy approvals for amending the 1998 Act

A review of the 1998 Act was announced by the then Minister for Industry Innovation and Science in October 2015. The review’s aim was to ensure that Australia’s space regulation is appropriate to technology advancements and does not unnecessarily inhibit innovation in Australia’s space capabilities. The review was completed in December 2016.

Policy authority for the amendment of the 1998 Act was provided in December 2016, with additional authority granted in March 2017 and in April 2018.

Policy approvals applicable to the 2018 Act

The explanatory memorandum to the 2018 Act indicates that the prescribed fees will operate on a cost recovery model in accordance with the AGCRG.

Formal policy approval to charge (including greater detail) will be sought following feedback from this draft CRIS.

⁴ AGCRG section 10.

⁵ In some specific cases it may not be efficient to cost recover (for example, under the 1998 Act, the charge for an overseas launch certificate for an approved scientific or educational organisation is \$100, and it may not be efficient to recover such a small amount).

Statutory authority to charge

The statutory authority to charge is under Section 59 of the 2018 Act. Under Section 59, the stakeholders seeking approvals must pay the relevant fee prescribed by the rules to apply, transfer or vary certain licences, permits or authorisations. The details of the fees will be contained in the rules, which will be developed prior to August 31, 2019.

Cost recovery model

Outputs and business processes of the regulatory charging activity

The relevant outputs of the activity are listed below.

Launch facility licence

A licence may be granted to operate a facility that is constructed as a place to launch space objects. This is typically a fixed facility, but includes mobile facilities. This licence will require a detailed application. A technical expert will need to assess elements of a launch facility licence application.

Australian launch permit

A permit may be issued to authorise a launch from an Australian launch facility. The launch permit may also authorise an object to be returned to Australia (in relation to the launch). This permit will require a detailed application. Technical advice will be needed to assess elements of a launch permit application.

High power rocket permits

A permit may be issued to authorise the launch of a high power rocket from Australia. There is no existing analogue for this activity in the 1998 Act. A body of work will be performed prior to August 2019 to develop rules for high power rockets. This will include a definition for high power rockets. The complexity of the application is likely to be at least partly dependent on the complexity of the high power rocket launch proposed.

Overseas payload permits

Australians seeking to launch their space objects from a site overseas are required to obtain an overseas payload permit. This approval considers a number of potential risks with regard to issues such as public safety, security, defence and international relations.

Return authorisations

Organisations seeking to return space objects to Australia are required to obtain an authorisation to do so. This authorisation will require a detailed application and is expected to be an extensive body of work.

Authorisation certificates

An authorisation certificate is an approval to conduct an activity that would otherwise be prevented under the 2018 Act, but for which there isn't an appropriate approval process. This authorisation type will help futureproof the regulations from unforeseen technologies that do not otherwise fit under the legislative framework. At this stage the Agency does not anticipate a demand for authorisation certificate applications under the 2018 Act. Due to the unknown nature of an activity requiring an authorisation certificate, it is not possible to accurately estimate the application cost.

Business processes for approvals

The key business processes required to process applications are:

- liaise with the stakeholder seeking approvals regarding administrative processes and receive an application
- ensure the application is complete and addresses the relevant requirements

- assess the application and seek relevant advice from other agencies within the Australian Government or external technical experts, as required
- brief the Minister and/or delegate to seek a decision on the application
- notify the stakeholder of the decision and any conditions of approval
- perform consequential actions (for example, it may be necessary to register the Australian space object with the United Nations Office for Outer Space Affairs or to update the register of space objects on the website).

Costs of the regulatory charging activity

Estimates of the per-application costs are detailed in the table below.

Application type	Costs				
	Direct	Indirect	Technical expert(s)	Capital	Total
Assessment of launch facility licence	\$31 960	\$5939	\$220 000	\$0	\$257 899
Assessment of Australian launch permit (fixed)	\$34 007	\$6287	\$149 600	\$0	\$189 894
Assessment of Australian launch permit (mobile)	\$34 007	\$6287	\$198 000	\$0	\$238 294
Assessment of high power rocket permit	\$16 126	\$2973	\$33 000	\$0	\$52 099
Assessment of overseas payload permit	\$5044	\$935	\$0	\$0	\$5979
Assessment of return authorisation application	\$32 932	\$6132	\$125 400	\$0	\$164 464
Authorisation certificate⁶	Cost determined on a case-by-case basis				

Table 1 Per-application cost estimates

The above costings are generated from an estimate of the typical time and staff-level to perform the business processes within an activity. This is based on our experience of the current requirements and our expectations for the future requirements. Both the direct and indirect costs are then calculated from the time/staff estimates and aggregated in the table above. The subordinate instruments to be developed in relation to the 2018 Act will describe the application requirements.

Cost components

The main cost drivers for processing applications include the hours taken by staff within the Agency (to assess an application and prepare briefing material) and, if required, technical expert advice. Estimates of the number of hours taken by Agency staff were generated for each application type. From this, direct and indirect costs estimates were generated.

In accordance with the AGCRG advice on cost modelling, *direct costs* are comprised of:

- salary
- superannuation
- long service leave

⁶ As an authorisation certificate is likely to be used to approve an activity not previously considered, it is not possible to accurately estimate the application cost. The Agency does not anticipate any authorisation certificate applications under the new regulations. This authorisation type will help futureproof the regulations from unforeseen technologies that do not otherwise fit under the legislative framework.

- staff training
- workers' compensation premiums.

Similarly, *indirect costs* include:

- human resources support
- organisational services
- information and communication technology
- property operating expenses.

Technical expert costs have been generated by estimating the number of days required to produce the necessary advice, and multiplying by \$2,200 per day. It is estimated that the daily rate would be \$2,200 including GST (not including travel costs). The number of days required will depend on the type of application and the complexity of the individual case. For many application types there are no previous applications to guide the time estimates. There is therefore a level of uncertainty in the time estimates, but it is not possible to provide better estimates.

Demand estimates

The demand estimate below has been formed based on historic activities, trends and general information. It is not based on a knowledge of expected applications by clients.

The overseas payload permit has been estimated based on the current number of assessments (5-6 per year recently) and a general trend of an increasing number of applications. Estimates are that this will increase to a level of 10 applications per year. The figure below estimates the number of applications for overseas payload permits. A permit may authorise more than one space object, or a series of launches of space objects.

Applications support significant investments, with the average demand expected to be less than one per year for many of the application types. Demand has been estimated using integer values per year. Future forecasts for these activities are difficult to develop with no current baseline for some activities.

Industry input on demand estimates is welcome. Additionally, demand estimates will be reviewed as part of the scheduled review in 2021/2022.

The estimated number of applications over a 7 year window is shown below.

Application type	Financial year							Total
	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26	
Overseas payload permit	6	8	10	10	10	10	10	64
Launch Facility Licence	1	1	1	-	-	-	-	3
Australian Launch Permit	-	1	1	1	1	-	-	4
Australian Launch Permit (from unfixed location)	-	-	-	-	-	1	-	1
Return Authorisation	1	-	-	-	-	-	1	2
Authorisation Certificate	-	-	-	-	-	-	-	0
High Power Rocket Permit	1	-	1	-	1	-	-	3

Table 2 Estimated number of applications

Due to the small number of applications expected, an additional application could increase the expected total costs by a significant proportion (for example, the estimates are to only receive two return authorisations across 7 years – a third application represents a 50 per cent increase).

Design of regulatory charges

Description of model

The proposed model will include two elements: a set fee (for each authorisation type)⁷ and additional charges for external technical experts, if required. This model allows a fair and transparent cost to be passed to the relevant stakeholders seeking the approval. The set fee will be determined based on the cost estimates of work done within the Agency. The additional charge will be the value of the external technical expert.

$$\text{Total cost} = \text{set fee} + \text{value of external technical expert}$$

The value of a technical expert contract will depend on factors such as the type of application and the complexity of an application. Upon application, the Agency will obtain a quote for any advice required from a technical expert.⁸ Once an estimated value of the technical expert costs are known, the applicant can consider and accept the estimated costs of the technical expert before progressing their application.⁹

Reasoning for model

Using set fees for the component of work done within the Agency has the benefit of being transparent, fair and predictable. Fees are tied to the type of activity, without the need to differentiate between different stakeholders seeking approval (for example, whether the company is an approved scientific or educational organisation).

Possible disadvantages of using a set fee are that some applications will be more complex than other applications of the same type, and that the small number of applications will make estimating the set fee more difficult than activities that have a high volume. It is reasonable and common to charge a set fee for cost recovered services, and it is considered efficient to have set fees (where practicable) rather than individually calculating fees for each application. To address the risk of over-recovering or under-recovering costs, the Agency will review the cost recovery activities in financial year 2012-22.

Full or partial cost recovery

Options are available for determining the value of the set fee. A 'full cost recovery' model would set the fee at a value per application where, over time, the total revenue over a period matches the total costs.

$$\text{Revenue} = \text{Costs}$$

A 'partial cost recovery' model would set the fee somewhere between no fee and the value of the full cost recovery model.

$$\$0 \leq \text{Revenue} < \text{Costs}$$

One model for partial cost recovery would be that the costs for work performed within the Agency are absorbed, and the costs done for work by external technical experts is recovered. The following table describes the fees for a full cost recovery model and this possible partial cost recovery model.

⁷ The quantum of the set fee is discussed further below.

⁸ Advice from a technical expert may cover assessment of complex items such as technology security plans, risk hazard analysis, flight paths, or emergency plans.

⁹ Should the cost of a technical expert exceed the initial estimate, the applicant will have opportunity to decide whether to proceed.

Application type	Set fee			Total charge	
	Full cost recovery	Partial cost recovery	Technical expert	Full cost recovery	Partial cost recovery
Overseas payload permit	\$5,979	\$0	\$0	\$5,979	\$0
Launch Facility Licence	\$37,899	\$0	\$220,000	\$257,899	\$220,000
Australian Launch Permit	\$40,294	\$0	\$149,600	\$189,894	\$149,600
Australian Launch Permit (from unfixed location)	\$40,294	\$0	\$198,000	\$238,294	\$198,000
Return Authorisation	\$39,064	\$0	\$125,400	\$164,464	\$125,400
Authorisation Certificate	Determined on a case-by-case basis				
High Power Rocket Permit	\$19,099	\$0	\$33,000	\$52,099	\$33,000

Table 3 Full and partial cost recovery models

The AGCRG indicate that charges are generally set to recover the full cost of providing activities. Partial cost recovery may be appropriate in some circumstances, such as where there is an explicit policy decision to charge for part of the costs of an activity. A strong case would be required to support consideration of partial cost recovery.

Specific questions on charging and potential cost recovery models

The demand estimates in Table 2 represent a considered attempt at predicting future demand. The Agency would appreciate industry feedback on the estimates for the purpose of validating and improving the cost estimates.

Information is requested that will support the Australian Government's consideration on cost recovery for space and high power rocket activities. Specifically, for the type of activities likely to be undertaken:

- How do the estimated costs in Table 3 compare to the costs of performing the activity? For example, what would the approximate regulatory cost be as a percentage of the costs to build and launch a satellite?
- What other costs are regularly factored in for the activities?
- Does the setting of the fee make a material impact on the projects (for example, its viability, or on the payloads that can be used)?
- At what point would you consider favourable charging models for space activities in other jurisdictions?
- What impact would the decision of partial versus full cost recovery have on your business or projects?

Are there any other factors that should be considered when designing that cost recovery model?

Risk assessment

There is a risk that cost recovering fees for overseas payload permits (particularly to small businesses and academic organisations) may be a disincentive to space participation. This consultation seeks feedback that will inform the Agency on this sensitivity prior to seeking policy approval for a cost recovery charging model.

There is a risk that the amount of applications will not match the numbers that have been estimated. If demand significantly exceeds the estimate, staff may have difficulty processing the applications received in a timely manner.

Risk mitigations

The risks of under or over recovering costs for the activity has been mitigated through the design of the models. The cost recovery models are fees only, and relate directly to work undertaken. There are no activity-wide costs (for example, capital costs) applied that are based on an estimate of demand. The charging models discussed contain fees that will not vary based upon variations in demand.

Activities undertaken in accordance with the 1998 Act are cost recovered. In addition to providing feedback on this draft CRIS, stakeholders will have an opportunities to provide feedback on the rules prior to their finalisation.

The cost recovery activities will be reviewed in financial year 2021-22 to ensure they remain appropriate and to use added experience to guide revised cost estimates. The review will also provide an opportunity to better understand potential future demand of a rapidly growing Australian space market.

Stakeholder engagement

Past engagement on cost recovery charging

The Agency has not recently consulted directly on charging under the 2018 Act, although comments were raised in the Senate Economics Legislation Committee (ELC) as Parliament considered amendments to the 1998 Act. Comments included:

- fees should be set in such a way as to encourage participation
- consideration should be given to scaling fees according to categories of space activities
- the ability to waive fees in some circumstances should be considered.

Comments were also raised in the 2017 Legislative Proposal Paper: Reform of the Space Activities Act 1998 and associated framework. Comments included:

- fees should be transparent, and not based on the size of an organisation
- annual fees for space licences (now known as launch facility licences) should be removed
- differing views on fee reductions for overseas launch certificates:
 - fees should not include cross subsidies between applications from different types of organisations
 - cost recovery fees could be a major barrier to some Australian organisations (including universities).

These comments were considered in the development of the proposed charging model. Comments on this draft CRIS will be considered in the development of the rules detailing charging.

Future consultation on cost recovery charging

Further consultation will occur as part of development of the rules. These will be developed during 2018-2019.

Feedback from consultation on this draft CRIS will support the Australian Government's consideration on charging. Following a policy decision on charging, rules related to fees will be drafted. Full public consultation on the draft rules will occur prior to their finalisation. The CRIS will also be finalised and published.

Financial estimates

Application type	Financial year						
	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
Overseas payload permit	\$35,873	\$47,830	\$59,788	\$59,788	\$59,788	\$59,788	\$59,788
Launch Facility Licence	\$257,899	\$257,899	\$257,899	\$0	\$0	\$0	\$0
Australian Launch Permit	\$0	\$189,894	\$189,894	\$189,894	\$189,894	\$0	\$0
Australian Launch Permit (from unfixed location)	\$0	\$0	\$0	\$0	\$0	\$238,294	\$0
Return Authorisation	\$164,464	\$0	\$0	\$0	\$0	\$0	\$164,464
Authorisation Certificate	\$0	\$0	\$0	\$0	\$0	\$0	\$0
High Power Rocket Permit	\$52,099	\$0	\$52,099	\$0	\$52,099	\$0	\$0
Total Costs	\$510,335	\$495,623	\$559,680	\$249,682	\$301,781	\$298,082	\$224,252
Revenue (Full cost recovery)	\$510,335	\$495,623	\$559,680	\$249,682	\$301,781	\$298,082	\$224,252
Revenue (Partial cost recovery)	\$378,400	\$369,600	\$402,600	\$149,600	\$182,600	\$198,000	\$125,400
Balance (Full cost recovery)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Balance (Partial cost recovery)	-\$131,935	-\$126,023	-\$157,080	-\$100,082	-\$119,181	-\$100,082	-\$98,852

Table 4 Estimated yearly costs

Financial performance

The following table provides historical revenue for the past five financial years.

Application type	2013-14	2014-15	2015-16	2016-17	2017-18
Overseas launch certificates	\$10,000	\$10,000	\$100	\$800	\$20,100
Space licences	\$0	\$0	\$0	\$0	\$0
Launch permits	\$0	\$0	\$0	\$0	\$0
Return authorisations	\$0	\$0	\$0	\$0	\$0
Exemption certificates	\$0	\$0	\$0	\$0	\$0
Total revenue	\$10,000	\$10,000	\$100	\$800	\$20,100

Table 5 Previous revenue

Non-financial performance

The number of applications varies with demand. The demand for overseas launch certificates has seen a significant increase since 2015. Between 2003 and 2015, only 5 applications were assessed, to very large geostationary communications satellites. Between 2016 and October 24, 2018, 16 applications were assessed for small non-geostationary space objects, often for testing or academic purposes.

Key forward dates and events

The key forward events and estimated dates are set out in the table below.

Key events	Indicative dates
Finalisation of the CRIS	2019
Consultation on rules related to fees	2019
Commencement of amended fees	Quarter 3, 2019

Table 6 Key dates of forward events

Estimates of expenses and revenue for the activity will be updated yearly.

The cost recovery activities will be reviewed in financial year 2021-22 to ensure they remain appropriate and efficient. By this time the proposed arrangements would have been in place for two years, presenting a good opportunity to use the experience of administering the 2018 Act in revising cost recovery charging estimates.

CRIS approval and change register

The following table will contain the change register when the CRIS is finalised.

Date of CRIS change	CRIS change	Approver	Basis for change
TBD	Certification of the CRIS	TBD	
TBD	Agreement to the CRIS	TBD	

Table 7 CRIS change register