# 1 About the inquiry

On 27 September 2012, the Assistant Treasurer asked the Productivity Commission to undertake an inquiry into the non‑financial barriers to mineral and energy resource exploration. The Commission was given 12 months to undertake this inquiry and submit a report.

## 1.1 Background to the inquiry

The origin of the inquiry stems from the findings of the Policy Transition Group’s (2010) *Report to the Australian Government — Minerals and Petroleum Exploration*. The report acknowledged the regulatory barriers faced by resource exploration businesses:

A range of approvals are required before exploration can begin, including land access, native title, indigenous and non‑indigenous heritage, environmental, conservation estate and planning and infrastructure approvals. Approvals processes can be costly and time‑consuming. Governments at all levels can unintentionally put in place conflicting policies that simultaneously promote and inhibit exploration. (PTG 2010, p. 17)

As part of the effort by the Council of Australian Governments to improve the regulatory environment faced by explorers, the Policy Transition Group recommended:

… the Australian Government should commission the Productivity Commission to undertake an examination of the regulatory barriers faced by exploration companies and present its report to COAG for action by Australian jurisdictions. (PTG 2010, p. 17)

## 1.2 What the Commission has been asked to do

The Commission has been requested to outline high priority reforms to address *non‑financial barriers* to exploration for mineral and energy resources in Australia. As part of this process, the Commission has been asked to:

* determine if there is evidence of unnecessary regulatory burden and, if so, make recommendations on how to reduce or eliminate these burdens
* examine the complexity and time frames of government approvals processes for exploration, and potential for delay due to appeals both within and across jurisdictions
* examine areas of duplication between and within local, state, territory and Commonwealth regulation that can be triggered throughout an exploration project
* examine costs of non‑financial barriers (including regulatory and related costs)
* consider options to improve the regulatory environment for exploration activities, having regard to regulatory objectives
* assess the impact of non‑financial barriers on international competitiveness and economic performance of Australia’s exploration sector.

The full terms of reference of this inquiry can be found on pages iv‑v.

The terms of reference define the scope of this inquiry and the coverage of its recommendations. Within the scope of this inquiry, the Commission has examined the issues from a community–wide perspective, as required by the *Productivity Commission Act 1998* (Cwlth). That is, the Commission has assessed the effectiveness and efficiency of government policies, programs and regulations, as well as the Commission’s proposed reforms, and assessed their net benefits for the wider community.

To scope the inquiry, the Commission has:

* defined which activities comprise exploration
* determined which issues were in and out of scope for the study
* clarified what could constitute an unnecessary burden.

## 1.3 Scope of the inquiry

### Defining resource exploration

The focus of this inquiry is on those activities that relate to the gathering of knowledge as to the location, quantity and quality of mineral and energy resource deposits. This includes the exploration activities of all organisations, encompassing both the large mining companies engaged in resource exploration and extraction and the smaller (junior) organisations engaged primarily in exploration activities.

Resource exploration uses a wide range of techniques. At one end of the spectrum, aerial photography and soil sampling, which generally have negligible environmental impact can be used, particularly at early stage exploration where the target resources are being identified. At the other end of the spectrum, intensive pattern drilling can be used at the final stages of exploration where the explorer is attempting to develop a comprehensive assessment of any resources discovered during earlier exploration activities. The nature of activities during this latter stage of exploration for some resources, such as coal seam gas, may differ little from extraction activities.

A guide to the stages involved in the resource exploration process is presented in figure 1.1. For the purposes of this inquiry, the Commission has determined that exploration activity effectively commences with the provision of public geological surveys, which are then utilised by private explorers to select areas for more intensive exploration. The process concludes after this exploration takes place and a decision is made about the economic viability of extracting any resources that may have been found.

#### The relationship between resource exploration and extraction

In practice, the distinction between resource exploration and extraction activities is more complex. Resource exploration is a precursor to resource extraction, and substantive barriers ‘downstream’ in the extraction and sale of resources may deter exploration. A concurrent study being undertaken by the Commission — benchmarking Australia’s major project development assessment and approval processes against international and domestic best practice — has scope to investigate major resource project issues.

While many in the community see exploration as leading inevitably to extraction activities, this is rarely the case for most mineral resources. It has been said that:

… it takes 500‑1000 grassroots exploration projects to identify 100 targets for advanced exploration, which in turn lead to 10 development projects, 1 of which becomes a profitable mine. (Eggert 2010, p. 4)

The discovery rate for resources such as oil is generally higher, but it is still a high risk activity. For example, the Australian Petroleum Production and Exploration Association indicates that in Australia over the last six decades, around 14 per cent of conventional exploration oil wells have led to production (sub. 22 p. 5). On the other hand, exploration for coal and coal seam gas often consists of determining the extent of the resources that are known to exist in a given area, with resource extraction highly likely to follow.

Figure 1.1 Key stages in resource exploration, production and processing

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| Figure 1.1 Key stages in resource exploration, production and processing. This figure shows a flow chart of the key stages in resource exploration. It begins with the natural resource endowments, economic conditions and policy settings of Australia. It then moves to public geological surveys. The process then moves to the generative stage where areas are selected by private explorers for more detailed exploration. Then the primary exploration stage is undertaken, where exploration occurs and discoveries may be made. If a discovery is made, it is then evaluated to ascertain if its is economically viable to extract the deposit. Assuming that it is, the process moves through the development stage, the production stage and then the site rehabilitation stage, however, this stages are not considered to be part of the exploration process. |

*Source*: adapted from Hogan et. al (2002).

### What issues are in and out of scope?

The terms of reference for this inquiry require the Commission to examine non‑financial barriers to resource exploration. This includes an examination of the regulatory framework governing the operations of resource explorers — exploration approvals systems and processes across Commonwealth, state and territory jurisdictions — focusing on environmental and heritage approval systems and processes.

The presence of other non‑financial, non‑regulatory barriers can further affect the performance of the exploration industry. For example, if the provision of public geoscience information is inadequate, it may discourage explorers from undertaking more intensive geological surveys on their own accord. Similarly, skills shortages may restrict the ability of the industry to undertake exploration activities in a timely and efficient manner. The Commission has examined the range of possible non‑financial, non‑regulatory barriers.

The terms of reference exclude examination of the Government’s response to the Report of the Independent Review of the *Environment Protection and Biodiversity Conservation Act 1999*. The inquiry is also not to examine processes under the Commonwealth’s *Native Title Act 1993*, the *Aboriginal Land Rights (Northern Territory) Act 1976* or state Indigenous land rights regimes. This report does, however, describe the operation of these regulations so as to provide a necessary context within which other regulation can be examined.

The Commission’s terms of reference also preclude examination of issues related to taxation, financial incentives, charges and royalties.

### What constitutes unnecessary regulatory burdens

Regulation is an instrument that governments use to achieve economic, social and environmental objectives. For example, land access regulations reflect and enforce the community’s values with respect to the rights of explorers and existing land holders regarding the use of land for exploration purposes. Environmental regulation is used to prevent or limit damage to the natural environment that may arise from some exploration activities. Regulation is also part of the institutional architecture of markets, enabling, for instance, the establishment of property rights and the enforcement of contracts (such as through exploration tenement allocation mechanisms).

Regulation, however, imposes compliance costs on those who are regulated — in this case resource explorers. Compliance costs include the costs of meeting the information and reporting requirements of regulators. Some of the largest compliance costs are the delays incurred by explorers when seeking approvals (for example, environmental and heritage approvals) from regulators. Regulations may also direct the way explorers operate and reduce their flexibility to respond to challenges and opportunities. The increased costs arising from the regulation may reduce the attractiveness of resource exploration as an investment destination.

The administration of regulations also imposes costs on the regulators by requiring appropriate systems to be established to process applications for licences, assessment of material provided by explorers for approval purposes and enforcement activities. These costs are met either by explorers through user pay arrangements or funded by government appropriations.

The range of potential compliance costs and distortionary effects of regulations (often referred to as regulatory burden) and their incidence and cumulative impact are illustrated in figure 1.2.

The terms of reference for the inquiry specify that the Commission is to have regard to regulatory objectives. Therefore, the Commission, when examining the regulatory frameworks governing resource exploration, had regard to whether the regulation is an effective and efficient means of achieving the policy objectives of that regulation, and whether good regulatory principles and practices are adopted.

An unnecessary regulatory burden arises where the policy objectives of the regulation could be achieved at lower cost to the affected parties. It is important, therefore, to differentiate those parts of regulatory costs that while burdensome, are necessary, from those that are unnecessary to the achievement of regulatory objectives.

Figure 1.2 Multiple potential burdens of regulation

Costs to business and the community

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| Figure 1.2 Multiple potential burdens of regulation. This figure provides a diagrammatic representation of the costs  of regulatory burdens. It divides the costs into those borne by government (administration costs to regulators) from those borne by businesses (fees and charges - which is a transfer to government - administrative costs to businesses and compliance costs to businesses) and costs to society as a whole (economic distortions and benefits forgone). Each of these costs (with the exception of business fees and charges) adds to the cumulative cost of regulation. |

a Cost to business depends on fees and charges passed on to business through cost recovery. **b** Some costs are passed through in prices, lower wages or lower returns on capital.

*Source*: PC (2011a).

The sources of unnecessary regulatory burdens include problems with the regulations themselves, regulatory duplication and problems caused by regulator behaviour:

*Problems with regulations themselves*

* unclear or questionable objectives
* conflicting objectives
* overly complex regulation or prescriptive requirements
* poor risk management through regulatory creep
* redundant regulation.

##### Duplication of regulations

* overlap and inconsistency of regulations
* variation in reporting requirements.

##### Regulator behaviour

* excessive reporting or recording requirements
* inadequate resourcing of regulators and inadequate skill levels
* overzealous regulation
* unwieldy approval and licensing processes
* lack of transparency in regulatory processes.

## 1.4 Conduct of the inquiry

To ensure broad community feedback and transparency, the Commission has invited feedback in the following manner:

* the inquiry was advertised on the Commission’s website and in *The Australian Financial Review* on 3 October 2012 and a circular was issued to advise interested parties of the inquiry
* in December 2012, the Commission released an issues paper to assist interested parties in making a submission
* the Commission has met with a range of stakeholders including resource explorers and their peak bodies, farmers, conservation groups, Indigenous heritage organisations and government departments at both the state and federal level

Prior to the release of this draft report, the Commission received 34 formal submissions from stakeholders. The Commission thanks those who have provided input into this inquiry to date.

## 1.5 Structure of the report

This report is structured as follows:

* chapter 2 provides a description of resource exploration and the role of governments.
* chapter 3 summarises the regulatory approval processes that explorers are required to meet in order to undertake mineral and energy resource exploration.
* chapters 4–6 examine specific components of the approvals process:
* chapter 4 considers issues relevant to land access
* chapter 5 reviews Indigenous and non‑Indigenous heritage issues
* chapter 6 analyses issues around the granting of environmental approvals.
* chapter 7 examines the provision of public geoscience information.
* chapter 8 looks at non‑financial barriers related to workforce issues — labour skills, workplace relations and workplace health and safety.
* appendix A documents the organisations and individuals that the Commission consulted with in undertaking this review, including those who provided submissions.