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5.6 The Award of Contracts and Licenses

5.6.1 Objectives, Constraints and Context

Typically, awards are made by a government authority on behalf of the state for the exclusive right to explore and, if certain conditions are satisfied, to exploit any commercial discovery. The objectives in designing the award process are to find the best candidate (for example, the most efficient explorer and developer); to maximize the potential revenues as a result of the award; and to avoid any distortion of incentives to perform.

Contract award decisions should logically emerge from the overarching EI sector policy objectives listed in **Section 5.3** above. As a priority, the following policy determinations should be made: (1) whether or not to explore and develop the EI sector, (2) at what pace the EI sector should be developed (if the answer to the first question is an affirmative), and (3) whether or not the private sector should participate. Very few states choose not to explore given their development needs and the revenue potential of the petroleum sector in the event of success.¹ States, however, may show concern over the pace of exploration and development activity. This concern is often rooted in the following: revenue absorption capacity (see **Chapter 8**), infrastructure constraints, or social and environmental risks.

In designing and/or conducting a licensing round, several government authorities are likely to be involved, with one designated as the lead authority. It will face a number of constraints, both external and internal. Geology and price expectations, each critical to investor interest, tend to fall into the first category; there is not a great deal that the authorities can do about them. Some actions are possible, however. If uncertainty about geology is a factor, a government can, and good practice would encourage, preparation of comprehensive data packages based on existing data and the possible acquisition of limited new data.

New data, such as seismic or aeromagnetic data (see **Box 5.7**), might be acquired at the government's expense, through donor support, or on a speculative basis by

¹ Deliberations in the island state of Palau were interesting in this respect. Palau had a dependable source of income based on its unique marine ecology and fully recognized that an invitation to explore for petroleum could threaten this source. In the end, exploration went ahead but not without considerable debate and introduction of appropriate safeguards. Costa Rica is another example of a state which hesitated about developing its hydrocarbons reserves: in August 2011 Presidenta Laura Chinchilla issued a three year moratorium on exploration and exploitation although this was suspended by the Constitutional Court in early 2012.

private investors acting on the government's behalf and reimbursed through data sales. Depending on its nature and value, the data might be made freely available to potential investors, sold to interested parties, or its purchase may in some cases be made mandatory as a condition for participation in the licensing round.

With respect to price expectations, governments may, if circumstances will allow flexibility on timing, choose periods of rising resource prices to launch a licensing round. Such periods are, however, likely to be periods of maximum competition among states for investor interest.

Internal constraints (such as matters over which the government might be expected to have control) will also have a major bearing on licensing prospects and include issues of macroeconomic and political stability as well as the types of legal, contractual, regulatory, institutional, and fiscal regimes a government chooses to adopt (see **Chapter 7**).

5.6.2 Conditions for Success

Turning from contextual considerations to the licensing process itself, a number of conditions have been demonstrated as critical to its success. The first of these conditions is an environment where there is *competition among potential investors*. If this can be achieved, it can potentially result in the best outcome for the state.

Competition among potential investors can also help offset some of the asymmetry regarding access to information that tends to disadvantage governments in licensing. Investors are very often better informed than their government counterparts as to a state's geological prospects. This is particularly true in the early stages of EI sector development when data sharing requirements have yet to be established. While problematic in the case of one-on-one bilateral negotiations over contract awards, this informational disadvantage is largely nullified when informed investors are made to compete against each other.²

A second condition critical to success is institutional capacity. Properly preparing a licensing round, and evaluating potential investors and their contract proposals are activities that require sophisticated professional technical, legal, and commercial skills. These skills need to be acquired by host government authorities responsible for the contract award process. Pending their development, the authorities are generally encouraged to engage support from outside experts.

² Cotula (2010), p. 18.

Box 4.7: Geodata

“Effective acquisition, maintenance and dissemination of geodata can act as a magnet to investment and can enable governments to understand better their natural resources in order to manage them most effectively”: BGS International (‘Geodata for Development: A Practical Approach’ (2012), www.eisourcebook.org).

The successful discovery of natural resources requires significant effort at the exploration stage. It also requires the application of sophisticated exploration and exploitation technology. To attract foreign investment, a host government should try to limit information uncertainties and asymmetries associated with its resource endowments.

Many developing states often lack the geosciences information (geodata) necessary to undertake detailed land-use planning. Faced with budget constraints and pressures to provide critical services to their citizens, geodata is poorly maintained, and hard to access. Many governments find it difficult to justify the collection of geodata when the payoffs are generally long-term in comparison with the country’s immediate spending needs.

Geoscience information can be collected on an *ad hoc* basis, resulting from a ‘lucky’ discovery by artisanal miners to more systematic, complex, and large-scale efforts. The quantity of this information (whether it is produced by a state or private investor) depends ultimately on the benefits and costs perceived by either party.

If all of the benefits are not internalized, or if the returns associated with the collection of geo-scientific data are prohibitively difficult to calculate (due to high perceived levels of political, technical, or security risks), a sub-optimal amount of geo-scientific information may be produced. Therefore, the primary aim should be to identify those policies required (if any) to ensure that an efficient amount of geosciences information is produced.

A minimum quantity and quality of geosciences information will be a prerequisite for ensuring that a host state earns an equitable portion of its natural resource wealth and so that private investors can assess the geological prospects of a particular license area. In these situations, the state does not need expertise in assessing the value of the license area since the competitive tension created by a properly managed auction process should ensure that the license is fairly valued. For example, the government of Papua New Guinea has been skilled at utilizing such data collection to promote investment in its EI sector.

5.6.3 Award Procedures

Transparency is at the core of good practice when it comes to award procedures. Whether acting individually or as participants in a competitive bidding round, license applicants – on a non-discriminatory basis – should be made fully aware of the procedures to be followed. They should also be provided access to all available data, whether on a free or purchase basis, and be informed of all applicable legal and fiscal regimes (including model contracts). Documentation should also provide assurances that areas offered for license are currently unlicensed and that proper authority exists for their licensing.³ With the possible exception of specific technical data, this information should be available in the public domain. All of this reduces the risk that one investor or consortium may be unfairly favoured over another.

It is desirable, and now increasingly common practice, that applications for awards should be prequalified. Bidders are prequalified to ensure that they have the financial and technical capacity to undertake a substantial exploration or mine development program. This also allows the government to eliminate bidders who are ‘not serious’, and to safeguard any special interests it might have, perhaps to reserve a proportion of the areas on offer to local oil and gas companies. Where geological information is limited, or not immediately encouraging, governments may decide to adopt an open door, first-come-first-served licensing procedure or direct negotiation with a limited number of prequalified companies. Where significant geological data is available and investor interest is high, competitive auction is generally considered the best option.

5.6.4 Criteria for Award

Once the credentials of potential investors have been established, good practice favours setting a limited number of clearly specified criteria for the award of a license. Arguably, the most important of these is the investor’s work commitment which should be specified in both physical terms and financial (or minimum) expenditure terms.

In petroleum contract awards, the work program is generally considered to be controlling and it must be performed even if resultant expenditures exceed the

³ Overlapping or multiple licensing has been a problem in mining. This problem is largely attributable to the absence of a professionally maintained mining cadastre. In both mining and petroleum, confirmation of licensing authority has been a problem, especially in federal states where sub-national authorities have sought to issue licenses where authority to do so resides at the federal level.

minimum.⁴ In mining contracts awards, it is not always possible to be very specific about the work to be performed and therefore giving priority to work programs may not be appropriate. In most petroleum licensing procedures, the work program and expenditure commitments are combined with financial and fiscal variables (such as bonuses, royalties, or production shares). For reasons discussed in **Chapter 7**, the last of these is probably preferable on efficiency grounds.

Sometimes a third variable may be added, but where awards are based on more than one variable, applicants or bidders need to be told the relative weights the authorities have assigned to each variable for selection purposes. Ideally, the variables selected should be relatively easily assessed not only by the authorities but also by observers of the award process. Adding variables related to contributions to local infrastructure and or local content – whether by direct participation in the award or through commitments to local suppliers – can make bid evaluation difficult even if the potential political and developmental appeal of such variables is strong.

5.6.5 Oil and Gas

CEPMLP Method of Award

Centre for Energy, Petroleum and Mineral Law and Policy

In designing a method of award of rights⁵, several overall objectives are likely to predominate: the method needs to be consistent with the government's overall policy for the hydrocarbons sector; it needs to encourage participation by foreign and ideally domestic participants; to favour selection of the company or consortium best able to do the job; it needs to deter collusion among bidders who might otherwise try to keep their bids low and it needs to provide some deterrence against political and lobbying pressures that might work to distort allocation by favouring some over others. It also needs to take into account the available technical and administrative capacity in the host state, and adapt the design accordingly.

There is no standard method of allocation of rights that could be applied by any government in any circumstances. However, there are two principal methods used by governments to allocate rights to explore for and exploit oil and gas. These are: (1) the open door method, by which rights are awarded at any time in a contractual form as a result of negotiations between the government and interested investors,

⁴ Setting only expenditure obligations may result in situations where cost overruns satisfy the investor's obligations, but where work – on which exploration success depends – is short-changed.

⁵ See S Tordo with D Johnston, and D Johnston (2010), *Petroleum Exploration and Production Rights: Allocation Strategies and Design Issues*, World Bank Working Paper No 179; and Duval, Leleuch, Pertuzio and Weaver (2009), 34-37.

following solicited or unsolicited expressions of interest in specified areas; and (2) rounds of award. The latter method can be sub-divided into two categories: administrative procedure and auction. Under administrative award, rights are allocated according to a process of administrative discretion on the basis of a set of criteria defined by the government. Under the auction method, rights are allocated to the highest bidder. In practice, most countries use a combination of these systems, since country-specific objectives and constraints will change over time, as will exogenous factors such as the level and trend of oil and gas prices. Moreover, the areas over which rights are granted will have diverse characteristics, including mature, frontier or deep-water areas, requiring more flexible allocation policies.

Open Door

The *open door* method presents risks with respect to transparency. Criteria for award are often not pre-defined or known to market participants. The acreage on offer may be completely unexplored or frontier in character, meaning that little or no information is available to the parties, and creating risks of major errors of judgment. The government will usually retain significant discretionary power and flexibility in the manner in which it awards rights. Less competition is probable, relative to that found in awards made following a competitive round. Corruption is therefore very possible. However, Tordo, Johnston and Johnston argue that such systems can “be made more transparent through the definition of clear award criteria, the publication of negotiation results and the use of external oversight bodies”⁶.

In the distant past, the award of rights by direct negotiations was common⁷ but the trend among host states has long since been one of favouring some form of competitive bidding.

Competitive Bidding

The award of rights in a *round of competitive bidding* has a greater potential for transparency. Unlike auctions, allocation in rounds does not divert significant sums of money away from exploration work. However, when administrative procedures are dominant, award criteria can be vaguely stated or not published at all. To

⁶ Ibid, p.xi.

⁷ Duval et al (2009), p.37.

counter this, the UK makes public its award criteria and more recently, has published information on the mark scheme attached to each criterion. The UK also awards rights on the basis of work programs proposed by the bidders and publishes those of successful applicants. Unsuccessful applicants can request detailed feedback on the evaluation of their applications. Where discretion is involved, it requires a level of technical capacity and resources among government officials if they are to evaluate the proposals properly. Where there are capacity constraints this is not likely to be an attractive option.

By contrast, the use of auctions can ensure that rights are awarded to the highest bidder. Auctions can also offer the advantage of conveying information about how valuable bidders believe rights to certain blocks to be, and also which bidder values them most. For areas that are under-explored or frontier in character, or where information is very limited, this can be a significant benefit.

Bidding parameters can be bonus payments, work programs, royalties and various forms of profit sharing, 'infrastructure-linked' or a combination of some of these.

- If a *signature bonus* is the parameter, then the investor that offers the highest up-front cash payment is most likely to be granted rights to the area on offer. Whether or not hydrocarbons are discovered, this offers a convenient source of early revenue to the government. It is unusual for a government to depend solely on a single parameter such as this, when it may be combined with royalties and corporate income tax to capture the economic rent;
- If bidding is based on *work programs*, it will be focused on exploration activity, and the investor will bid to carry out a specific set of activities within a specified time frame. Like cash bonus bidding, it represents a cash outflow for the investor prior to a discovery, but by contrast exploration costs are usually recoverable and tax deductible. The program would normally contain some flexibility to allow for new information that results from performance of the work commitments;
- If *royalty* is taken as the main parameter, the investor that offers the highest rate will receive the rights to explore for and develop the resource in the area on offer. Such payments are conditional on future production and so upon a commercial discovery. Since no large up-front payment is required, this method of bidding is more attractive to smaller investors than cash bidding;
- If bidding is based on *profit sharing*, it is the investor that offers to pay the highest share of potential future profits that is granted the rights for the area

on offer. Like royalty bidding, this is an offer to pay that is conditional on discovery, development and production of hydrocarbons, and also requires no up-front payment; and

- Linkage of access to resources with infrastructure investment has become more popular in recent years: so-called *bundled bidding*. For emerging petroleum countries, including many in Africa, that have significant infrastructure needs and limited public expenditure capacity, the bidding parameters could include the improvement of local infrastructure related to the area where the project will be developed, for example.

The literature on methods of award of rights tends to dwell on the element of discretion and its potential for creating uncertainty. This wariness may be exaggerated. Typically, a state will make a standard offer to all comers but in some cases it will be possible to negotiate or bid upon quite crucial elements of the bargain. *In practice, this use of discretion in making the final award can be valuable for the host state* since it may allow the state to choose an investor that is more likely to fit the government's social, industrial or environmental policies. Tordo and Johnston recognize too that "the award of future licenses may be a powerful way for a government to influence the behaviour of existing investors."⁸ Discretionary power in this respect has the potential to act as a carrot or incentive to existing investors to cooperate with other policies that may be quite distinct from allocation ones (and without which the state's ability to persuade a reluctant investor may well be much less).

In a comparative study of discretion in oil and gas regimes, Terence Daintith notes that "discretion appears most significantly as a way of relaxing rules which might lead to the loss of title in the absence of development or production"⁹, noting the examples of Australia and the USA. Rules and standards for government behaviour can become too strict in some regimes and discretion can act as a way of addressing the resulting rigidity. However, in countries where there are few checks and balances in operation, such as through legislatures, courts and civil society groups, the arguments for reducing the scope of discretion in the award of rights are much stronger.

A different set of issues arises with respect to the award of rights to companies for the acquisition of data (see 4.6.1 above). Many governments seek to reduce geological risk and increase competition among potential investors by allocating these limited rights to a single company for a very limited period of time. Such technical information is expensive to obtain and has commercial value. Governments

⁸ Ibid, p.16.

⁹ Daintith, T (2006), p.2.

therefore typically allow the company to sell it in packages to potential investors as a way of recovering costs and making a profit. Access to the data is of course shared with the government.

Joint Bidding

In the oil and gas industry, irrespective of the kind of contract that a host state intends to offer, it is very common for companies intending to submit a bid for rights to join together in a consortium. This is a helpful way of securing the participation of smaller companies, as has been found in Australia, Brazil and the UK. By making a joint application the parties are seeking to reduce their individual levels of risk, to share the application costs and set down the principles on which they plan to work together. This joint venture will allow them to pool diverse strengths such as financial, technical and commercial capability, but also good connections with the host government and a track record in the country or region. This joint approach will lead to the conclusion of an agreement governing their relationship during the application period: a **Joint Bidding Agreement**. If the bid is successful, this early form of joint venture agreement will be the precursor to the Joint Operating Agreement or JOA (discussed in **Chapter 4.6**).

The mechanics of such agreements are described below. However, some governments take the view that joint bidding should not be encouraged and even prohibited since they reduce the number of competitors and may encourage collusion. Angola, the United States and also Venezuela are examples of countries that have taken this approach, as was Norway until a few years ago.

If investors are to conclude a joint bidding agreement, the parties will need to disclose and discuss what each of them can offer the joint venture. Exchange of information can be a sensitive matter since it may be that one party owns technical data likely to give the group a competitive edge in a bid. The parties, therefore, will require a **confidentiality agreement** within which to place these discussions. If the bid does not go ahead, this can assist in dealing with the return of information and obligations about non-disclosure. Another document that the parties may consider necessary is an agreement that establishes an **area of mutual interest**. The agreement predates a joint bidding agreement and is a statement that the parties' interests are in alignment and that they intend to work together to pursue joint development opportunities if the area becomes available for development.

The Joint Bidding Agreement will set out the terms on which the parties will make their bid for hydrocarbon rights. Therefore, it will set out the area and the kind of

rights that are being applied for, as well as a timetable and steps that need to be taken to prepare and submit the bid, and how the costs are to be allocated among the parties. It may well prohibit any party from submitting a bid for hydrocarbon rights in the area separately from the group. It will also set out the basic terms on which a JOA will be entered into if hydrocarbon rights are eventually awarded to the joint venture. It can be more or less detailed and cover, in outline at least, many or only a few of the topics that a JOA would normally cover (voting and withdrawal mechanisms, for example). Given the time it takes for a JOA to be fully negotiated and concluded, the Joint Bidding Agreement may, if the bid is successful, prove to be the basis for the parties' initial operations covering several years. It is, nevertheless, an agreement concluded with a view to securing, rather than managing, the contract rights and so is likely to have an interim character.

In principle, it would not be impossible for the parties to proceed with their bid application without such a joint agreement. However, the investment of some extra time and money over that required to make the bid itself is usually thought worthwhile in defining in some detail the terms that will govern the new relationship.

CEPMLP

5.6.6 Mining

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Method of Award

The procedure for allocation of mineral rights is typically based either on a non-competitive process (sometimes called 'first come first served' or 'free entry') or a competitive (tender) process. Both are commonly found within a single state but not used simultaneously.

The first method is where the party that first applies for rights in a particular area has a priority right to be granted rights to explore provided it satisfies some administrative requirements. This has typically been common for exploration licences due to a lack of geological information and correspondingly higher risk and lower investor interest. Even where information is available, the likelihood of a large discovery may be deemed to be small. It has the advantage of being simple to administer with online applications being possible.

The second method is often used when a government invites bids for areas it has offered already and on which it provides more assured information about its potential. The risk is therefore lower than for greenfield acreage and allows investors to make more informed decisions. It has tended to be used in situations where

geological data is available from exploration programs and where there are strong indications of interest from more than one potential applicant. This may occur if licences are released by state companies (in connection with a divestment program, for example) or where mineral rights have been relinquished or revoked. It is harder to apply to greenfield sites about which there is little information or where such information needs to be reviewed and confirmed. The main difference between the two methods lies in the application process rather than in say the eligibility criteria used or the terms and conditions. It lies in “the route followed to acquire the mineral right”¹⁰. Any method of allocation of mineral rights should be subject to continuous review and assessment, as lessons are learned from experience, and incorporated into future practice.

There is a body of literature that argues for competitive bidding in preference to the ‘first come, first served’ method¹¹. It usually notes that in awarding rights for oil and gas activity, such a method is very common, but less so in the mining sector. Yet, the value of natural resources could be captured by society by encouraging company applicants to bid against each other. A UN study notes that “(t)ransparent and competitive concessioning of known mineral assets can help” in setting a fair market value on the resource¹². Others argue that “the technical nature and risks of finding resources in the two industries and in the different economic and risk profiles” between hard-rock mining and hydrocarbons provide a justification for favouring the first come, first served approach in awarding mining rights¹³.

In some cases, a government may elect to grant exemptions from either of these methods of award or to give a community a preferential right to mineral rights in their area. It may also decide to make an award of rights on a direct basis with an investor in exchange for infrastructure. This kind of bundled deal offers potential for a wider development in the country concerned and beyond¹⁴.

A delicate feature in any regime for allocating rights is the amount of discretion reserved to a government in relation to an award. If this is not narrowly drawn, it has the potential for abuse of power, and will certainly be treated as a significant risk factor by potential investors. Appeal to judicial review is less likely when provisions

¹⁰ CSMI, University of Witwatersrand (2010), Granting Mineral Rights: A Good Practice Note: <http://www.eisourcebook.org/cms/files/Good%20Practice%20Note%20for%20Granting%20Mineral%20Rights%20-%202012%20Oct%209%20v2.pdf> (last visited 17 March 2016), p.4.

¹¹ For example, P Collier, *The Plundered Planet* (2010), OUP, chapter 5.

¹² Minerals and Africa’s Development, The United Nations International Study Group Report on Africa’s Mineral Regimes (2011), United Nations: www.uneca.org/sites/default/files/publications/mineral_africa_development_report_eng.pdf, p.95.

¹³ K Haddow, Should Mineral Rights for Hard-Rock Minerals be Awarded by Tender?, in 32 *J Energy & Natural Resources Law*, 335-346.

¹⁴ For a discussion of this, see ‘Mineral Resource Tenders and Mining Infrastructure Projects Guiding Principles’ (M Stanley and E Mikhaylova)(2011), Extractive Industries for Development Series No 22, The World Bank, Washington DC.

for actions by government officials are couched in discretionary terms, rather than say as duties imposed on such officials. In the Ghana Minerals and Mining Act 2006 a provision was introduced which required the Minister to give reasons in writing where an application is not granted or the application is granted over only a part of the land applied for (Section 5(3)). This was designed to ensure transparent use of discretion and to give comfort to applicants for mineral rights.

Non-discrimination is an important principle in making any award of rights. It is important in countering any attempt to favour domestic mining companies or state-owned mining enterprises. In Western Australia, the mining regulations address this by a common device. Section 57(4) states that:

“...the Minister, may on the application of any person, after receiving a recommendation of the warden... grant to that person a licence to be known as an exploration licence...”

Usually an application for an exploration right is accompanied by a program of work. Over time a new program will be required as progress is made and greater knowledge acquired. Performance of the program will normally be a condition for renewal of the licence. In Chile a failure to establish this condition of a work program has meant that little greenfield exploration has been carried out. Relinquishment is also included as a condition.

It should also be noted that in states where minerals belong to the landowner, negotiation of payment of royalties will be the typical means by which an investor will acquire mineral rights. Where the land cadastre is in traditional ownership, even though the mining cadastre (the subsurface rights) is usually owned by the state, it will be essential for the investor to develop a constructive working relationship with the local community through its leaders. About 80 percent of the surface land in Ghana, for example, is in traditional ownership.

In the CSMI study on allocation of mineral rights¹⁵, the authors identified eight sub-optimal practices:

- Discriminatory practices and over-use of discretion by government and officials;
- Lack of clarity and transparency in the processes and procedures for acquiring mining rights;
- Absence of consistency in the terms and conditions applied to mining rights;
- Disregard for the ‘rule of law’ by both government and investors;

¹⁵ Ibid.

- Poor governance with regards to rights and obligations of mining right holders;
- Inadequate institutional frameworks for management of the mining sector;
- No provision for social and environmental impacts of mining; and
- Inequitable distribution of benefits from mining.

To counter these, five principles of ‘good practice’ ought to be applied to both the competitive and non-competitive application/administrative processes, in their view. The first of these, Equality before the Law, requires a framework that ensures non-discrimination to all applicants, whether local or foreign, based on pre-defined eligibility criteria; compliance requirements and titleholder obligation; public disclosure of application (and related consultation with landowners and affected communities); standard terms and conditions (covering duration, transferability, and discouragement of hoarding, for example); a transparent fiscal and royalty regime; equal application of the law in the acquisition of mineral rights. The second overarching principle which they identified was ‘good governance’, which implies that the Rule of Law should apply to both the government and the investor with respect to: administrative justice and procedural fairness; consistency in the application of the law; clarity of administrative procedures; guided discretionary powers; security of tenure; access to courts and compliance with the law.

Three further principles were: social and environmental protection (reflected in the compilation of environmental and social impact assessments and implementation of good labour practice and observance of health and safety laws); equitable distribution of benefits (including charters that ensure benefits filter through to society as a whole); and institutional framework for implementation (well defined responsibilities and capacity for effective management systems, including targets, performance measuring tools and a computerized cadastre system).

First Come, First Served

The traditional approach to the allocation of mineral rights – whether licences or contracts - was to do so on a first come, first served basis. The availability of this method was thought to incentivize companies to make an application for mining activity, and was not necessarily biased in favour of any party. Examples include Australia, the United States, some Latin American and many African countries. However, over time a number of states have adopted the competitive bidding approach. Examples of this shift are Algeria and Tanzania.

The changing trend is generally due to more geological data becoming available and an increasing interest among companies in obtaining exploration rights than in past decades. Thus, the non-competitive approach has come under review in a number of states, particularly where more than one company is applying for a license for the same tract of land.¹⁶

As always, the key issue is not whether a country should become part of a trend or not, but rather whether its own circumstances merit this approach or the alternative or some hybrid. In China a mixed approach is adopted: auctions are allowed for areas previously explored but first come, first served is adopted for unexplored areas. If the state's capacity to process applications is low, it may find that the first come, first served approach results in a very large number of applications (several thousand in Mongolia, for example), with the effect of choking its ability to assess them properly. Some applications may also be purely speculative, and it may decide that they are not to be encouraged. Mongolia provides plenty of examples of this, given that its Minerals Law of 1997 did not include a review of the applicant's technical and financial qualifications. Again, China provides a contrast: its version of the first come, first served approach included a requirement of proof of technical qualifications, a technical exploration plan and proof of funding¹⁷.

The non-competitive approach will continue to be appropriate for areas that are largely unexplored; however, in areas where good geological data is available and where there are strong indications of interest from more than one potential applicant, governments are more likely to instead offer licenses on a competitive bidding basis. The key is to ensure that rights are offered on a fair, transparent and timely basis. It should also allow for dispute settlement processes in the event that disputes arise.

In the face of allegations that this method leads to a hoarding of rights, some have proposed the adoption of a 'use it or lose it' regime, whereby the licensee has to explore, mine or relinquish its rights to allow another party to do so.

Competitive Bidding for Mineral Rights

Where deposits have been previously explored and new development and production rights are being offered, competitive bidding should be used. Governments will be encouraged to develop in some detail their strategies for

¹⁶ States that have permitted access to sub-soil rights without a competitive bidding process in the past appear to be shifting practice towards a more competitive process.

¹⁷ PRC Decree No 240, Articles 6 and 8.

mining activity prior to such bidding, which is in itself a positive development. There are successful examples of this in Peru and Afghanistan.

Two examples of new development and production rights being offered are: first, when land is released by a NRC back to the government for licensing to private inventors; and second, when a license holder hands back land for which more detailed geological data has been provided to the government. In both cases, there may be several investors competing for the same license; in these cases only competitive bidding should be used.¹⁸ However, in the case that land is offered for competitive bids and there is only one qualified bid, then that bid would, of course, be the winner.

Another context in which competitive tenders become appropriate is that of post-conflict and fragile states where mineral assets, including past operating mines, have become separated from the holder of prior rights. As governments strengthen their regulatory control and improve their knowledge of the resource base, the need for a competitive award of mineral exploration and exploitation rights grows. The Aynak copper deposit in Afghanistan is an example of this,¹⁹ but other examples can be found in many African post-conflict countries, such as Liberia, Mozambique and Sierra Leone. The existing body of geological interpretation may nonetheless prove to be of limited use for mining company applicants.

Tendering requires some upfront costs from the bidders, and if there is an element of administrative or political uncertainty, or a lack of transparency, it may fail to attract investors. In some countries of the former Soviet Union, the process has been adopted and proved time-consuming and expensive for investors²⁰. Payments have been required, as well as higher taxes and royalties than in neighbouring countries.

Good practice calls for a transparent competitive bidding process that can be accomplished by ensuring access to all qualified bidders and having standardized bidding documents that include: (1) all available geological information; (2) confirmation that the land is unlicensed; (3) details of the applicable legal regime and procedures; and (4) full details of the rights that will be granted to the winning bidder.

¹⁸ Global Witness (2008). *Assessment of International Monetary Fund and World Bank Group Extractive Industries Transparency Implementation*. Washington, D.C.: Global Witness, pp. 11, 20.

¹⁹ Stanley (2011), *ibid*, p.7.

²⁰ A Clark, K Naito, N Stevens, P van der Veen, J Williams, 'The Potential for Mining Investment in Transition Economy Countries of East and Central Asia', *Mining Journal Books/The World Bank Group* (2003), Washington D.C.

Mining Bidding Criteria

Single bidding criteria (usually an upfront cash premium with staged payments) are simpler to apply than multiple bidding criteria. A single bidding criterion can be either (1) an upfront premium or (2) the value of the work program to be undertaken. In either case, the winning bidder should submit a bankable feasibility study within a given time period or risk forfeiting the license.

If a set of multiple bidding criteria are used then factors such as upfront cash payment, conditional payment and/or minimum exploration expenditure can be combined. This can be achieved through an equation that creates a numerical value. However, any combination that includes a work program evaluation will involve subjective judgments on the part of an evaluation committee that is evaluating the work program. In the case that mining exploration is being competitively bid, it is quite rare that an upfront cash premium or a future payment is used because mining companies do not see sufficient value to bid such a payment. Typically, however, an exploration work commitment will be competitively bid. Relevant considerations include the following:

1. cash bonus bidding, which is generally considered to be less efficient in frontier areas;
2. use of area-wide licensing in which the government takes into consideration the bidders' expressions of interest in other areas; and
3. market segmentation, which takes into consideration the bidders' technical and financial capability to pursue different types of exploration activities.²¹

²¹ Tordo, *supra* n. 12.

Box 5.8: Licensing Across Shifting International Borders

While award of rights to land areas can generally be made on the basis of certainty about boundaries between adjacent states, this is not always the case in maritime areas. Until the boundaries are clearly established under international law, investors will be unable to make substantial commitments. One way of addressing overlapping claims and providing a temporary solution so that hydrocarbons activity can commence and revenues shared is for states to agree on a Joint Development Zone or Area.

International law allows for states to take provisional arrangements of a practical nature to develop the mineral deposit in a defined area under dispute without foregoing their territorial sovereignty (UNCLOS, Arts 74, 83). In practice, a JDZ may be a permanent solution in place of a delimited boundary. There are more than 20 around the world.

There are three ways to establish a JDZ. The first is to allow one state with expertise to manage the resources on behalf of both states with sharing based on a pre-agreed ratio (for example, the Bahrain-Saudi Arabia Agreement, 1958).

The second is for two states to joint venture and each state nominates its own contractor which enters into a joint venture with the contractor of the other state (for example, the Japan-South Korea JDZ). The third is the Joint Authority approach, where both states delegate power to a single body, which becomes responsible for overall supervision of activities including the award of rights in the JDZ (for example, the Nigeria-Sao Tome e Principe JDZ and the Timor Sea JDZ). In the former case, the first round of licensing was held in 2003 and by 2013 US\$400 million had been spent by contractors under five PSCs awarded in two rounds. Much of the government revenue has been in the form of signature bonuses and concession rentals.

The JDZ contains transparency provisions supplemented by the Abuja Joint Declaration on Transparency and Governance signed by Heads of State and Governments. The Authority is a member of the EITI. An Environmental Baseline Study of the JDZ was undertaken in 2006 and all activities are regulated according to Environmental Guidelines applicable throughout the JDZ. Infrastructure/social projects have been carried out by Operators in communities in both countries and local content rules applied.

Box 4.9: Deep-Sea Mining

Technological advances are yielding access to mineral deposits in the deep waters of the oceans. This frontier for mining exploration involves licensing in waters subject to national jurisdiction (the Exclusive Economic Zone (EEZ)) and in international waters.

In international waters, applications for rights are granted by the International Sea-bed Authority (ISA) under the UN Law of the Sea Convention, which establishes and governs the “area” beyond jurisdiction of Coastal States for “the common heritage of mankind”. The ISA has established a Mining Code and issued several sets of regulations on minerals. The Code requires information on the proposed Plan of Work in a licence application to include: a preliminary assessment of the possible impact of the proposed activities on the marine environment; a description of the proposed measures for prevention, reduction and control of pollution and other hazards, as well as possible impacts on the marine environment, and a description of environmental baseline studies and rules relating to possible environmental impact. Companies must enter into a contract with the ISA before receiving an exclusive right to explore for or exploit the mineral resources of the deep sea bed.

Developing States have preferential access to the Area through identification of ‘banked’ sites with known prospectivity. Exploration licences from the reserved ‘banked’ sites have been granted to commercial companies sponsored by Nauru (2011), Tonga (2011) and Kiribati (2012). State sponsorship entails responsibility to monitor and control. Apart from the economic rent, the expected advantage is knowledge transfer. Already more than two dozen licences have been granted to countries such as Brazil, China, India, Japan, and Russia.

A number of countries are also seeking to derive benefits from Deep-Sea Mining (DSM) in their EEZ as well as in international waters. Papua New Guinea became the first state to award a seabed mining licence in its national waters. Fiji is among the growing number of Pacific Island countries engaged in licensing, adopting a law to promote investment in this area: International Seabed Minerals Management Decree 2013. The UK passed a Deep-Sea Mining Act in 2014. For the ISA National Legislation Database, see: <http://www.isa.org.jm/en/mcode/NatLeg>

The marine mining industry has produced a voluntary code to address environmental protection issues: the International Marine Minerals Society’s Code for Environmental Management of Marine Mining (http://www.immsoc.org/IMMS_code.htm).