



check over w. Crommelin

- 1 -

A. R. Thompson, '69, in F. Rogers, Change in Alaska

p. 14 Provincial premises recurrently want to extend north & annex Yukon or NWT, unlike Alaska.

(No jurisdictional disputes in Ak? Probly just on some other level.)

Alk. differs from NWT, he fails to say, by being state-owned; & being more dependent on revs. from pet.

Equity particu. by govt. is another way to go. E.g. Panama Oil; & Ex. Canadian Oil Sands, Ltd.

Leg. A.R. Th., Petrol. Land Policies: Ak & N.-w. Canada
Boreal Inst., Occasional Pub. No. 5 (Edm.: U. Alta., 1968)

p. 80 Canada Oil & Gas Land Regs. in n.-w. Canada were set in their present form in 1961, as a product of close govt.-industry cooperation. Enacted as regs. under authority of an Order-in-Council, never the subject of public debate.

U.S. Mineral Leasing Act of 1920 was outcome of 10 yrs. of political controversy, ff. close of public domain by ex. orders in & around 1918. M.L.A. closed the public petr. lands to entry under the placer mining laws, & installed fed. govt. as a landlord w. rental & royalty interests. Treated govt. like a freehold owner of oil & gas rights, & patterned govt.-granted lease on the petr. freehold oil & gas lease.

v. A.R. Th., Basic Contrasts betw. Petrol. Land Policies;
Colo. Law Rev., 36 (1964), 181.

Alta. leg. modelled on Fed. Ak. Stat., Sect. 38.05.180

U.S. laws are Mining Act of 1870, and MLC of 1920.

Modern trend of law elsewhere is to recognize stages of

- geophysical
- expl. only
- prodn

Larger tracts, for large scale ops.

Soph. incentives for expln. included. (specify!)

Here, p.81, A.R.Th. is a Minnimitic Canadian scolding
U.S. w/o specifics.

Tom Kelly announced, N.S. acreage now (1969) under fed.
freeze will be classified for competitive leasing once freeze is
lifted, & state's selection vts. are recognized.

Non-comp. leasing meant recognition of exist'g fed. lease
"offers". ~~State Sen.~~ Don Simarko testified pro Sen. Bill 152
of 1969, to that end. ("Overrides"?)

These "offers" were mere filings, I believe.

Will competitive bidding freeze out little operators?
Alta. has used comp. bidding since 1940. High bidders
have not been restricted to majors, and nos. have Ad
each year. 1968. 200 successful tenders.

Mike: Does this feature make Alta. different?

p. 85 - n. 23 Alta. ^{petr.} _{news.} one from all 3:
1967-68

Fees & rentals	\$54 m	
Royalty	94 m	
"Crown Revenue Sales"	70 m	(bonus bids?)

In Alta., parcels on which no bids are rec'd are "posted" and are "then available on an over-the-counter" basis.
(meaning?)

Acres held at rental of \$1/a has run at 80% of the
sedim. lands in Alta. since 1941 (1st major oil discovery).

p. 86 Favors relinquishment system of Alta.

In Alta., triggering event for (1) lands have been proven production by a well drilled, or for (2) Comm. believes it is in best int. of state

(1), problem is semi-proven acreage cannot be offered competitively, but must be offered to 1st fiter. (why?)

(2) No one knows what land is worth, ~~is~~

Burden of decision on Comm. is too great.

Prefers shifting burden to oil cos.

Free entry on unproven lands, under an exploratory reserve, or permit which carries the right to lease, but checkboards (or corridors)

In Alta., ^{not leases} resms. may be had w/o bid on parcels up to
99,840 acres. Renewably only for 5 yrs.

6th yr., if drilling in progress, can continue resm. into
7th yr. - then resm. lapses.

Then holder selects his fraction, up to 50% in ea. tierp.
on checkboard basis. Unleased acres revert to Crown
This becomes Crown reserve, & can only be sold by tender.

Fed. regns. u-n. Crow. one limitation.

✓ Leases judgment w. priv. ops; calls for less discretionary
responses from public officials.

Favorable devt. conditions shd. not be entrenchable
for long. Tussing has argued they shd. be, to max. early
revs. Thompson thinks Canada entrenches too long.

Fri. Jan. 14 will come here.

Cronin

Arctic, produ. costs are very hi, not explu. costs

Proposed "Proportionate A/L Royalty", Canada Fed. Helliwell
figures will yield no rev. 1. field-specific,

a "ring fence" drawn around field, as British do.

Allow a 25% return, then apply hi tax rate.

Eng. allows accelerated write-off, 175% of expenditures

There are 3 levies

1. 1/8 royalty

2. Inc. tax

3. Petr. tax, This has the 175% write-off, or
"25% uplift",

- 1 Info. is a public good, like street lights only
more so. Use by one does not interfere w. use by another.
Unless A uses it to find what B is looking for.
Same as A using street light to sit where B wants to.
A lamp lights a limited space, serves a limited resource.
Info. serves a limited resource.

The info., however, serves any no. of people who wd. want to
bid on the resource. Thus it is ec. for govt. (or r.e.
indy) to publish info. on vulnerability of land to
earthquake, flood, fire, sliding, etc. before people build there.
Also, title faults. Saves duplication of info. search.

Library catalogues, too. There is opposition to all such
mass systems from those who ch. sell the service over
& over again. But this is not a legit. position.

Going to a MS, however, there are hazards, too, to
guard vs. They are:

- overdesigning
- unionism
- x sub.
- k-intensity.
- prematureity.
- locking in obsolete techn. & demands

2 Is info. valueless unless confidential? No. Free libraries are filled w. info. that few have mastered or can use. It takes work & ability to find, sort, interpret. However, value to seller is reduced.

3 Sell lease subject to disclosure reqmt. This is already done w. drilling. Re g & g, ~~sett~~ is problem. Here, contrast for expln.

4 Peterson missed a trick. He says owners wd. explore more if they cd. get externalities by owning adjacent land.

But if adjoining land is up for lease, they drill near the line to learn more (now, they must disclose this info. to state, but there is lag in publishing). The possibility of acquiring favorably is maybe more stimulating than already owning. In fact, it clearly is, b/c they are drilling at their borders in pref to their hearts.

→ Write Doherty for data on this. On some factual basis.

5 The tax system ~~now~~ affects whether firms are more or less risk averse than the state.

Firms are taxable; the state is not.

Musgrave et al once wrote that taxn. & risk pref. How was

(Tax system reduces mgd. value of cap. to rich firm, plowing back)

What? State shares losses.

✓ Any floor under losses must Δ risk pref -- bankruptcy law.
Gambling vs. nature.

Loss carryback & fwd. and merger to wipe out loss, certainly share loss.

For small corps, corp. tax is progressive. This reduces risk sharing, tends to make small corps risk-averse.

Merger to share losses is painful - this also tends to make smaller firms risk-averse.

The state has other leases & tax sources. shd. be risk-accepting. This requires overcoming the inherent conservative bias of bureaucrats — concerted effort needed.

To overcome a bias, it shd. be possible, by recognizing what kind of bias the govt. structure produces. Then create constant counter bias.

Anyway, b/c of taxes, lessees are always dealing in smaller sums than state. It costs them \$.5m to pay \$1m; & they get .5m by earning 1m.

So?

- 6 p. 37. Alta. recently shifted towards higher royalties.
p. 40 This was a change of rules, applying to both old & new leases. (In U.S., I doubt a state cd. do this, altho FERC & FPC have by price control.)
- 7 Majors may be bigger than Alt. more diverse, argues for bonus bids.
But minors are not. To encourage them go to deferred.
- 8 Well spacing -- a poor substit. for unitization of res.
What shd. the lease sell? Rt. to produce at a rate determined by state rec. eng.
Criteria to be followed by rec. eng. shd be announced. He might even decide some tracts shd. have no wells. They wd. just get money from others.
But then, why have ownerships at all? What is their for?
- 9 Intro.. I begin w/o ideological absolutes. Role for public; role for priv. Determine what they are.
Function is the criterion.
- 8 resumed. In Alta., owners of small areas must pool their rts. to create a drilling spacing unit, DSU.
Alta. Energy Res. Cons. Bd. may order compulsory units.

- 10 Area of DSU has risen
1950 - 40 acres
1962 - 160 ..

"as the extent of overdrilling has been progressively recognized." - p. 43.

160 a is much smaller than Ak. tracts, of course.
Everyone shd have a well.

- 11 Altn., when prorating to what demand, prorates & reserves.
Wrong, of course. [This is prorated among pools. W-in pools is by area)
Ak. may have to prorate on a slope, when
there is more leased than pipeline capacity.

State shd. prorate to assert common carrier
nature of pipe. John — can be cited.

Basis of prorating — lower field price.

State shd. no way sell more than enough to
fill pipe line! Sell less, force down rates. Of
course, screwy ICC raises rates if pipe not full.

This becomes a waiting game. Who can wait better,
for other side to give in? State must curb spending,
to strengthen its hand.

- 12 Avoid schemes favoring depth: and thin sediments.
Alta. has curb -- p. 45.
- 13 Voluntary unitization of gas is the rule, nearly 100%.
Incentives to unitize oil are weaker, so 60% is unitized.
Alta. Bd. has power to force, but never used it.
- 14 New criteria needed for near. opn. to max. state return
- 15 1916, Alta. oil capacity again threatens to become excessive.
- ✓ 16 Pre-leaseing expln. by govt. means you can lease
whole res., hence remove problems of fragmented interests.
- ✓ 17 Seems clear: Publishing info. pre-leaseing wd. attract a host
of new bidders who are:
risk-averse
poor but efficient
small, specializing in produ.
Too preoccupied elsewhere to have explored here.
Etc.

a strong case. Make it.

C, 11 - But ask Commission

11. Canada, Fed, has 3-Tier system:

- a. License for G & G
- b. Permit for expl. drilling.
- c. Lease

3. Duration

They will overwork leases of short duration, and sit on those of long.

Jack Rodenick. Dec. 9, 1976

- 1 Alta. abandoned Ekby? Why?
- 2 Nov. 18 PM Rodenick.
Try to get Norgaard there.
- 3 Alta. has 600 apcs.
- 4 He had good help in Ottawa from
Don Crosby, in charge of lease policy
Kusnick, leasing & finance.
- 5 Edmonton, help from — Day
- ✓ 6 G.R. wants different rules in different areas.
Uplands & inland areas, leave for indeps.
Scraps for the dog?
- 7 Alta. had frequent regular small sales.
This seems better for indeps. Steady, reliable source.
- 8 Alta. picks up 30% of g & s cost, in return for the info. after
one year. Before or after sale?
- ? 9 Alta. ~~did~~ now lets lessee keep Crown revenues for a higher
royalty.

App. D

NON-COMPETITIVE ALLOCATION SYSTEMS:
A CRITIQUE

Michael Crommelin
Faculty of Law
University of Melbourne
Australia

Paper prepared for Dr. Mason Gaffney
27 January 1977

1. Introduction

The United States represents the exception rather than the rule in its adoption of competitive mechanisms for allocating oil and gas rights on public lands.¹ The United Kingdom, Norway, Canada, Australia and the Middle East oil producers have all preferred non-competitive systems. These systems may be classified into two categories: filing (or "free entry") procedures and discretionary (or negotiated) systems.

2. Filing Systems

The distinguishing feature of these systems is the opportunity presented to each private operator to obtain exclusive exploration and/or production rights for oil and gas on public lands simply by lodging an application, at nominal cost. Additional obligations may also be imposed, such as location of a claim, survey of the area in question, and registration of the claim, but these are generally insignificant. What is important is that the initiative in obtaining rights rests solely with the private operator. The government has no active role in the allocation process. Examples of filing systems for oil and gas rights may be found in Canada, in the northern and offshore regions under the jurisdiction of the federal government², and in Alberta (until 1 July 1976).³ Many more instances occur in the field of hard rock mining.

Problems encountered with filing systems are numerous while advantages are few. The major difficulties include (a) inefficiency (b) loss of potential government revenue, and (c) lack of control over location of oil and gas operations.

(a) Inefficiency. Filing systems promote inefficiency by providing an incentive for exploration before it is required. Each operator is aware of the fact that, in order to obtain rights over prospective acreage, he must be the

first to make an application. He is therefore encouraged to apply earlier than he would in the absence of this "competitive" element. This factor in itself need not lead to inefficiency if the cost of obtaining the rights is negligible. However, a common characteristic of filing systems is the obligation imposed upon private operators to spend fixed amounts in approved exploratory work each year in order to maintain the rights in force. This requirement causes premature expenditure on exploration.

It is sometimes suggested that exploration should take place at the earliest possible date, in order to provide information about the resource. While it is true that information is useful, it must be recognized that information is obtained at a cost. A dollar spent on exploration today amounts to more than a dollar spent next year. Accordingly, premature exploration reduces the ultimate value of the resource in production.

Another argument made in favour of filing systems proceeds on the ground that the cost of any inefficiency is borne by the private operator rather than the government. Since the major companies explore in many jurisdictions other than Alaska, it is claimed that encouragement of premature exploration merely attracts dollars from other places to be spent in Alaska (with consequent benefits to the local economy). The difficulty with this approach is that it too overlooks the fact that exploration expenditures are taken into account in assessing the value of the resource. And it is that value which provides the opportunity for government revenue. In the end result, it is the government which suffers the cost of premature exploration.

Another problem with filing systems is that they do not ensure that rights are awarded to the most efficient operator. The company which is first to recognize the potential of an area need not be the one to develop it at least cost. If rights are transferable among operators without restriction (a

feature usually absent from filing systems because of opposition to "speculative" gains) the most efficient operator may ultimately acquire the acreage by purchase. But this may well be a costly process which again leads to inefficiency and waste.

(b) Loss of Government Revenue. Under a filing system, a private operator has an incentive to apply for oil and gas rights in respect of an area as soon as that area takes on a positive value, however small. Thereafter, any increase in value of the area flows to the private operator rather than the government.

The discovery process for oil and gas causes frequent reappraisals of the value of areas, often upwards. A successful well drilled on one block upgrades the potential of adjoining areas. A government which allocates blocks on a restricted basis, retaining nearby areas until their potential is better known, is in a position to benefit from these information "spillovers". In contrast, a filing system allows private operators to reap these unearned rewards. An illustration is provided by the different allocation systems in force in Alaska and the Canadian north at the time of the Prudhoe Bay discovery. Alaska was in a position to sell adjoining acreage at considerable benefit to government revenue. In Canada the filing system allowed private operators to acquire prospective acreage on a first-come, first-served basis. The area under permit more than doubled (from 190 to 440 million acres) between 1968 and 1970.⁴ There can be no doubt that the filing system precluded the Canadian government from vast revenues.⁵

It is not surprising that the Canadian filing system was suspended in 1970, with a view to widespread revision. However, in 1977 that process has still not been completed.⁶ This illustrates another feature of filing systems: they allow private operators to acquire rights long before development may be contemplated. A change in external circumstances (such as occurred with the enormous increases in world oil prices during 1973 and 1974) may destroy the

underlying assumptions upon which the rights were issued. Nevertheless, the government finds itself in a position where many of its options are foreclosed. It may be driven to new forms of taxation by an inability (or unwillingness) to revise the rights structure.

(c) Lack of Control Over Location. Since a filing system places the initiative regarding allocation of oil and gas rights squarely upon the private operator, the government has little opportunity to control the siting of exploration and production. Oil and gas operations are thereby afforded priority in situations of land use conflict. This situation is plainly inconsistent with government responsibility to take account of a wide range of social, economic and political factors, such as impact on local communities and protection of the natural environment.

The principal advantage claimed for filing systems is that the minimal role of government implies correspondingly small administrative cost. This is so, but the argument proceeds upon a highly restrictive view of cost. If account is taken of the losses of potential government revenue flowing from the above inefficiencies and inequities, it appears beyond doubt that filing systems are very expensive to the public.

Finally, it may be noted that the original proponents of filing systems, the Canadian and Albertan governments, have recently abandoned them. The proposal for changes in oil and gas rights in the Canadian northern and offshore regions adopts competitive bidding as the allocation mechanism, as does the new Alberta regime which took effect on July 1, 1976.

3. Discretionary Systems

Characteristic of discretionary or negotiated systems is the fact that the administrator is placed in a position of choosing among applicants for oil and gas rights in specified areas. The government retains a very high measure of

control over private operators: it nominates the areas available for acquisition, determines the time at which such areas become available, selects the operator for each area, and (usually) lays down the terms and conditions upon which rights are acquired. In the result, there are often considerable variations in rights among operators in different areas. Examples of discretionary systems are found in Norway⁷, the United Kingdom⁸, Australia⁹, and most OPEC countries.

Disadvantages inherent in these systems are (a) the potential for graft, (b) inefficiency, (c) administrative difficulties and (d) loss of government revenue.

(a) Graft. It is unnecessary to say much about the opportunity for graft and corruption presented by a system which vests wide discretion in a public official to deal with resources of considerable value. It is not suggested that this has been a failure of the Norwegian, United Kingdom or Australian systems. However, the potential must be recognized and, if such a system is adopted, an appropriate review mechanism included to take account of this factor.

(b) Inefficiency. The inefficiency arising under discretionary systems is derived from the fact that the private operator selected for each area is not necessarily the least cost operator. Of course, this result is to a degree intentional: it simply represents the price paid for the opportunity to implement government policy. The difficulty lies in quantifying that price. In the absence of a bidding procedure, the government is unable to ascertain how much potential revenue it is forgoing in order to promote its chosen policies.

(c) Administrative Difficulties. This factor is closely related to the previous one. The administrator is placed in a position where he must choose among applicants. On what basis should the choice be made? Undoubtedly the legislature may specify guidelines or criteria. Inevitably, though, the administrator will require considerable information regarding the geology of

the area, exploration and production costs, marketing and pricing factors (to name but a few) in order to apply those guidelines. The difficulty is compounded by the fact that the only source of such information is likely to be the companies themselves. Perhaps it is not surprising, therefore, that some countries which rely upon discretionary allocation have opted for creation of a government corporation to participate in all phases of exploration, development and production, not just as a means of obtaining revenue but also to provide the information necessary to administer the system. The United Kingdom and Norway illustrate this trend.

(d) Loss of Government Revenue. Unless the government is confident that it can design a production tax which is entirely successful in taking account of differing geological, cost and location factors among fields (all of which influence the ultimate value of production), discretionary systems involve a loss in government revenue. This loss may indeed be large. In 1971 the United Kingdom experimented with bonus bidding for 15 blocks in the North Sea. The revenue obtained, more than 37 million pounds, became a source of government embarrassment as people were not slow to calculate how much potential revenue may have been lost on the 848 blocks previously issued "free" by the discretionary method.¹⁰

Advantages claimed for discretionary systems flow from the control retained by government. The allocation process may be manipulated to achieve policy objectives, such as preference for domestic operators (apparent in the U.K. system) and priority for small rather than large corporations. The only response to be made to this claim is to inquire, at what cost?

Supporters of discretionary allocation also point out that it avoids "front-end load" - the commitment of substantial capital sums by private operators long before production (and cash flow) begins. However, it is not the only

method for dealing with this problem. A competitive allocation system may be designed where cash bonuses are intentionally small because the system also employs production-based taxes or charges designed to collect the greater part of government revenue.

Finally, there is no doubt that discretionary allocation, if combined with negotiated work commitments, may provide a means of subsidising exploration. The problem lies in deciding whether, accepting that a subsidy has been judged to be desirable, this method represents the most efficient form of subsidy. This is unlikely to be the case. The cost to government revenue is unascertained, so that the success of the programme is difficult to evaluate. Moreover, it has been shown that if a government is prepared to give up cash bonuses in order to stimulate exploration, work commitment bidding will generate greater exploration expenditure.¹¹

4. Conclusion

In summary, it is suggested that competitive allocation of oil and gas rights over public lands has considerable advantages over non-competitive mechanisms, on both efficiency and equity grounds. Competitive allocation need not be inconsistent with other government objectives, such as avoidance of front-end load. Part of the strength of a competitive system is derived from the fact that it places reliance upon private operators to evaluate different areas (although government should not be precluded from calculating reserve bids, which implies that government obtain the information necessary for this task). Moreover, competitive allocation may be the only way (short of ex post assessment) of taking account of all factors which determine the value of areas. When used in combination with other taxes and charges, bidding provides a measure of the effectiveness of the entire revenue system. When the level of bids uniformly rises, the government receives a signal that revision of future taxation

arrangements may be necessary (the converse also holds). Lastly, and perhaps most significantly, competitive allocation adds a measure of political acceptability (and thereby stability) to a system designed for public resources.

Footnotes

1. Competitive mechanisms are not exclusively employed in the U.S., of course; the Mineral Leasing Act of 1920 provides for non-competitive allocation outside a "known geologic structure of a producing oil or gas field."
2. Canada Oil and Gas Land Regulations, Statutory Orders and Regulations 61 - 252 (as amended). A detailed description (and critique) of this system is to be found in Michael Crommelin, "Offshore Oil and Gas Rights: A Comparative Study", 14 Natural Resources Journal 457 - 500 (1974).
3. For a review of the Alberta allocation process as it operated until July 1, 1976, see Michael Crommelin, "Government Management of Oil and Gas in Alberta", 13 Alberta Law Review 146 - 211 (1975).
4. Canada, Department of Indian Affairs and Northern Development, Activities 1970: Oil and Gas North of 60 (Ottawa, 1971).
5. See Crommelin, "Offshore Oil and Gas Rights", 474.
6. In May 1976 the federal government issued a Statement of Policy giving details of the proposed new leasing system. The legislation to implement the widespread changes has not yet appeared. (January 1977)
7. For an account of the Norwegian system, see Kenneth Dam, "The Evolution of North Sea Licensing Policy in Britain and Norway", 17 Journal of Law and Economics 213 - 263 (1974).
8. See Dam, "North Sea Licensing Policy", and Crommelin, "Offshore Oil and Gas Rights".
9. See Crommelin, "Offshore Oil and Gas Rights".
10. Crommelin, "Offshore Oil and Gas Rights", 470.
11. Gregg K. Erickson, "Work Commitment Bidding", in Crommelin and Thompson (eds.), Mineral Leasing as an Instrument of Public Policy (Vancouver: University of British Columbia Press, 1977 forthcoming).