

Regulatory Authority in Awarding Petroleum Exploration and Production Rights

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Highlights

- There are multiple regulators in subsector of petroleum exploration and production rights awarding.
- The regulatory architecture and governance of oil and gas sector and subsector of awarding is chaotic and intricate.
- establishing an excellent oil and gas regulator with the functions of licensing, environment and safety based on the regulatory excellence model is required for the current regulatory status of Iran.

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Abstract

Resource rich countries are extremely dependent on oil companies for the extraction of petroleum resources. Governments decide which company has the right to extract the petroleum. However, according to the principle of permanent sovereignty over the natural resources, awarding the right to petroleum resources shall be exercised in the exclusive right of the people. Safeguarding the people's right, governments are required to design both regulatory institutions and governance for develop, enforce and review of awarding regulations. For this reason, the present article analyzes the regulatory authority of petroleum right awarding in Iran. By reviewing the existing laws and regulations we conclude that the current status is chaotic and intricate due to the multiplicity in awarding regulators and inadequate governance. It is recommended to establish an awarding regulator based on the principles of regulatory excellence.

Keywords: Awarding the petroleum right, Oil And gas sector, Regulator, Regulatory excellence, Regulatory functions

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1. Introduction

Oil and gas industry play a crucial role in the developed and developing countries' financial and economic development. However, there is a considerable variation in the effects of resource abundance on the well-being of the people in resource rich countries. countries like Nigeria, Angola and Chad have the lowest per capita income from oil sale (Humphreys et al., 2007). These countries are struggling with a phenomena Known as Resource Curse. The Resource Curse or Paradox of Plenty refers to a situation in which a country with oil or other natural resource wealth have failed to use their valuable natural resources for the benefit of the local (Reader, 2015). corruption, currency devaluation and internal conflicts and turmoil lead to decline the share of agriculture, industry, service and other trade-related

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sectors in total employment. For these reasons, the performance of governments and oil companies has come under great scrutiny by social and environmental NGOs. In response to this pressure, different countries and international community making various policies and initiatives for solving this phenomenon. Many of these solutions such as Oil to Cash or depositing parts or all of oil revenue in a fund are seeking to transfer some or all of the revenue from the natural resource extraction to citizens in universal, transparent and regular dividends based on clear rules (Moss, Lambert & Majerowicz, 2015). Indeed, these proposals relate to the end points of extractive value chain. The first point of extractive value chain is the licensing and access to the petroleum right and the risk of corruption and resource curse is greatest during the licensing process (Votava, Hauch & Clementucci, 2018). Therefore, the governments tend to regulate how petroleum licenses or contracts are awarded to oil companies for exploration and exploitation of petroleum resources. but, the concept of awarding regulation making alone is not enough and the regulatory efforts need to gain support from the institutional context (OECD, 2010); regulatory agency in the awarding E&P right, its governance, organization and its rules of operation play critical role in implementation and enforcement of awarding regulations. Thus, it is possible to imagine an architecture for the regulating of E&P right awarding on which the concepts such as bad, good or excellent regulatory model can be applied.

Providing a regulatory architecture for awarding petroleum right adoptable by all countries around the world is not possible because the objectives of policy making, culture, historical background, geographical conditions and legal systems of different countries are different from each other (world bank group, 2011). But at least by analyzing the existing regulatory structures and their pros and cons, policy makers can adopt the excellent regulatory experience of other countries in petroleum awarding. Hence, the present article aims to analyze the regulatory architecture of petroleum awarding in Iran, its challenges and the suggested solutions for the exciting structure to become excellent.

The Regulatory architecture of petroleum right awarding in Iran has not been addressed in domestic and international papers so far, thus, in order to critique and improve the exciting regulatory structure, the article contains two parts: in the first part, the Conceptual Framework for Regulatory Architecture and Governance in Petroleum Right Awarding will be discussed. In the second part, we will examine the exciting regulatory architecture of awarding in Iran and recommend some solutions for excellence in this area.

Part I. Conceptual framework for regulatory architecture and governance in petroleum right awarding

From 20 years ago when the concept of regulatory reform put on the agenda of OECD, there has been particular emphasis on establishing a regulatory management system including processes and institutions through which high quality regulations are developed, enforced and adjudicated (OECD, 2001). Such processes and institutions need to be designed. That means that there should be a regulatory agency with the legislative mandate passing and enforcing awarding regulations. In order to create, modify and enforce regulations, the regulatory body adheres to certain operating procedure and standards and ultimately satisfies the necessity of regulation-making. Therefore, the rationale for regulation in awarding E&P right, the responsibilities of the awarding regulator, separation or consolidation of licensing function and components of an excellence in regulatory governance constitute the conceptual framework of regulatory architecture and governance in the awarding area. Each of these constituents will be discussed.

1-Rationales for the regulation in the awarding area

There are two principal legal regimes governing oil and gas operations: concessions (licenses or royalty/tax systems) and contracts (production sharing contracts and service agreements). The applicable legal regime in Iran is contract: Buy back and Iranian Petroleum Contracts (Shiravi & Amin Majd). The decision of governments as to which company and under what conditions has the right to explore and produce of oil and gas based on the license or contract, is made through a process which is called awarding procedure. Awarding mechanism varies across the countries but in a general category, countries use Discretionary or bidding system for awarding licenses or petroleum contracts (Hunter, 2015). In both systems, criteria such as signature bonus, work program, royalty and profit-sharing scheme offered by interested companies are used for evaluating and selecting the qualified company (Tordo, 2010).

Governments usually pursue certain reasons and objectives by regulating the awarding of E&P right. The most important of which are:

-ensuring security of supply for the domestic market

in order to safeguard and secure domestic supply, there are some policy options such as importing low-priced oil or natural gas or refined oil product from outside a state's jurisdiction and simulating the development of domestic production. Through designing an efficient awarding procedure, it is possible to promote the low-cost domestic petroleum production (Taverne, 1999).

-obtaining foreign currency

one of the government policy objectives in the petroleum sector is providing foreign currency for domestic affairs. this policy objective can be pursued in licensing subsector; the petroleum right is awarded to a joint venture between domestic and foreign companies. The local E&P companies contribute their share of exploration and expenditure in domestic currency but would be paid a certain percentage of their sale proceed in foreign currency (Government of Pakistan, Ministry of Petroleum and Natural Resources, 2009) .

-Maximization of economic rent

the economic rent is the residual difference between the total economic cost of a factor of production and its received revenue. The share of government from economic rent can be maximized by allocating the petroleum right to the highest bonus, royalty or profit-sharing bid (Kemp, 1987).

-Controlling the pace of petroleum resources depletion

depletion policy relates to the rate at which a petroleum resource is to be extracted. The depletion policy influences the position of the government concerning the oil companies. If a government chooses a high rate of extraction, it should promote the competition in awarding procedure (Noreng, 2016).

-State participation in petroleum production

it is possible to regulate the awarding procedure in such a way that the criteria for license allocation are designed with provisions for state participation in the form of carried interest (Noreng, 2016)

-improvement of local infrastructure: in some counties, access to petroleum right is linked to the downstream or infrastructure investments which is called bundle bids (Tordo, 2010).

-Local content development

some countries promote the local content requirement through the procedure for awarding petroleum rights. Local development in this strategy varies from favoring the national oil company in licensing

round, restricting local companies' ability to transfer their rights to foreign companies to establishing a certain level of local content as evaluation criteria for E&P right awarding (Tordo & Anouti).

-Protection of the environment

protection of the environment affects the awarding procedure in 2 ways: in one hand, opening of new petroleum acreages and selecting the qualified company depend on the evaluation of the environmental protection plans (Bunter, 2002). On the other hand, the government puts the climate issue at the center of its awarding policy and bans new oil and gas exploration and extraction (Erickson & Lazarus, 2018).

-Promoting Corporate Social Responsibility

one of the fiscal terms that might be applied to the E&P operations under a license or contract is social responsibilities. the company is required to make social and welfare contributions for communities' empowerment. The amount of this commitment may be determined in tender protocol (Liberia Petroleum Regulatory Authority, 2020).

In addition to the above-mentioned justifications, Reducing the compliance and administrative costs and distortionary effects, solving market problems are the other reasons for regulation (Tordo, 2010).

2. the responsibilities of the awarding regulator

The second component of the awarding regulatory architecture is the responsibilities of the awarding regulator. The awarding regulator is an agency with the special mandate on licensing and controlling the compliance of contract or license provisions. This agency is required to report to the petroleum, energy, power, natural resource ministry or other relevant institutions. The responsibilities of the awarding regulator include the implementation of petroleum policies, estimating the perspective areas for oil and gas activities, marketing and promoting petroleum acreages, drafting the model petroleum agreements, negotiating with the qualified companies, signing the license or contract, collecting regular reports from oil companies and holding coordination meetings (Bunter, 2002).

The awarding regulator is responsible for implementing the legislative and administrative policies in the petroleum sector and providing inputs to policy formation. If the government has developed a policy for allocating the right of oil and gas exploration and exploitation, the AR delineates the contract blocks through graticulation system and develops a strategy for promoting these blocks. Based on its strategy, the AR may decide to sale geological mapping data to oil companies. In any case, Petroleum blocks are allocated based on the guidelines and instructions issued by AR. The awarding criteria are determined by AR after consultation with other relevant ministries and departments. the consultation principal is also applied to drafting the technical, financial and legal provisions of the model contracts. AR negotiates with domestic and international oil companies under supervision and control of Petroleum ministry and provides proposals or comments on awarding the petroleum right to the qualified company. It may sign the petroleum contract or license by itself and then takes the responsibility for monitoring the compliance of contract or license provisions. The monitoring implies to collecting the regular reports from the oil companies and creating a national archive of petroleum data. The representative of AR also participates in ministerial energy dialogues and joint commission meeting with international oil companies. Bunter, M(2002).

The AR may undertake not only the mentioned responsibilities, but also take the responsibility of regulating the HSE requirements of E&P operation. In general, the regulatory tasks can be divided in two categories; first, licensing and stewarding function which refers to opening new areas for exploration and exploitation of oil and gas resources, the negotiation of license terms and achieving maximum economic recovery of petroleum. The second, safety & environmental protection functions

which relate to assuring the health and safety of workers, assuring the structural integrity and sound operating practices of plant, equipment, infrastructure and operations and reducing any harmful effects on the environment (Chandler, 2018). Therefore, in designing awarding regulatory architecture, the AR may have safety and environmental protection functions in addition to licensing and stewarding function. More details on consolidating or separating of these two functions are provided in the next section .

3. Consolidating or Separating the licensing, safety & environmental protection functions

Consolidating or separating the licensing and safety and environmental protection functions evolve from the Norwegian model in management of petroleum resources. In 1972, the Norwegian government developed a model for managing petroleum resources in which all functions of petroleum sector are divided between three separate entities; the commercial entity is Statoil, the policy-making entity is the Ministry of Petroleum and Energy and there is a regulatory body which is the Norwegian Petroleum Directorate (NPD) (Thurber, Hults & Heller, 2011).

After developing such model, different countries in the North Sea, Latin America, Mediterranean areas and other regions have tried to adopt the Norwegian model as the best industry practice for managing and governing the oil and gas sector (Doric & Dimovski, 2018; Thurber, Hults & Heller, 2011). This model evolved gradually as the industry gained more experiences in E&P operations. In a way that the regulatory functions of petroleum sector were also separated. The detriment effects caused by oil disasters led the countries to establish separate regulators for safety and environmental protection functions. In contrast, some countries relying on their own governance model, have integrated all regulatory functions into one regulatory body (Roggenkamp, de Graaf & Fleming, 2021).

In Norway, there are three separate regulators for licensing, safety and environmental. In 2002, the Norwegian Petroleum Directorate (NPD)'s regulatory responsibility for safety was given to a new regulatory body called the Petroleum Safety Authority (PSA). The regulator for environmental protection is Norwegian Environment Agency (NEA), which reports to the Ministry of Climate and Environment. Chandler, J. A. (2018) It should be note that the Norwegian Parliament (Storting) in another actor in making licensing policies. Because the Storting commonly decides whether to open new areas for oil and gas operations (Pereira & Bjørnebye, 2019).

In opposite direction, in 2011, the government of Alberta announced his intention to establish a single regulator for oil and gas development in the province. the proposal for regulatory reform suggests that the mandates of Energy Resources Conservation Board (ERCB), Alberta Environment (AENV) and Sustainable Resource Development (SRD) should be consolidated into a new regulatory body. But there was no comment about the handing over the Alberts Energy Regulator' licensing function to the new regulatory body (Vlavianos, 2012). Finally, by passing the Responsible Energy Development Act (REDA), the Alberta Energy Regulator (AER) has been introduced as the single regulator for energy development projects.

Although the ERCB is the main energy regulator of Albert but the AENV and SRD also have the extensive responsibilities regarding the environmental and safety aspects of energy projects which overlap with each other. The duplication or overlapping of responsibilities are common in the case of issuing well permits, commissioning of petroleum installations, conducting environmental impact assessment before an energy project starts, controlling greenhouse gases emissions and project disclosure and abandonment. According to the REDA, the mandates and responsibilities of all three regulatory bodies has been handed over to the AER and the ERCB has been dissolved (Nikolaou, 2012).

The place of current architecture of UK is in the middle of the separation and consolidation spectrum. This means that in this country, the licensing and environmental protection functions have been assigned to a separate regulator; the UK Oil and Gas Authority. The safety regulatory function is exercised by a distinct Offshore Safety Division within Health and Safety Executive (HSE). It should be noted that there is another safety & Environmental protection regulator in UK created by the Council Directive (EU) No. 2013/30 named the Offshore Safety Directive Regulator (OSDR). But its mandate is limited only to environmental and safety requirements related to major hazards.

In general, the AR whether separate from the safety and environmental protection regulators or not, adheres to certain standards of conduct in order to meet the regulatory objectives. The organization and governance of AR can be designed in a way that it provides stakeholders evidences of success and becomes the excellent regulator. Therefore, the excellence regulatory governance will be explained in the next section.

4. Regulatory excellence

Best-in-class or excellent regulator project is a study & research project sponsored by (AER) and conducted by the Penn Program on Regulation (PPR) at the University of Pennsylvania. The objective of this program is to help the AER and other regulators around the world to identify the characteristics of the Best-in-class or excellent regulator (ER). Because the exact meaning of the ER cannot be provided and the existing definitions are based on some characteristics (Nwapi, 2020). The findings of PPR have been arranged in several areas: the attributes of regulatory excellence, the subject matters of these attributes, the path toward excellence, measuring the progress of the regulator on a path toward the excellence (Coglianese, 2016).

According to the PPR, all the characteristics mentioned in the literature review of the regulatory reform can be summarized in three principal attributes: Utmost Integrity, Stellar Competence and Empathic Engagement. these features constitute the atoms of regulatory excellence molecular (Alberta Energy Regulator, 2016).

Each of these attributes is based on three tenets which make the clearer. Utmost Integrity constitutes from the Fidelity to law, Respect for democracy and Commitment to public interest tenets. Thus, it is a concept behind the absence of corruption. Analytical capability, Instrumental capacity and High performance underlie the Stellar Competence feature aiming to maximize the public values. The Empathic Engagement can be founded on Even-handedness, Listening and Responsiveness tenets referring to the transparency and public involvement in decision making (Coglianese, 2016).

The attributes of excellence are applied to traits of the regulatory organization, its actions and the outcomes of its actions. If the organization and actions of a regulator including rule making, inspection, responding to incidents or other regulatory-related actions are arranged according to excellent attributes and tenets, it leads to valuable outcomes. Some of these outcomes are substantive like reducing pollution and saving costs. While some others are process-oriented such as building trust and strengthening legitimacy.

Determining the attributes of excellent does not lead to excellence by itself. Instead, there should be a causal model or chain representing a chain of casually connected events. According to PPR model, the organization of the regulator and key facet of its actions i.e. Priority-Setting, Problem-solving and public/ external management affects the quality of its performance. The regulator needs to develop people excellence whether in terms of its staff or the public to which the regulator is accountable.

Measurement is closely linked concept in learning and progress. regulators should be strategic in measuring their regulatory performance. This means that they should at first determine the objectives of measurement and then design the measurement system. PPR finding document, after describing the advantages and disadvantages of Broader Measurements, Narrower Measurements systems and system of comparing regulators with each other, prefers the measurement for excellence to measurement of excellence. For this reason, it should include in its measurement system some evaluation researches. That's what AER did and in 2019, it published its performance evaluation report. As stated in this report, in 2017 and 2018, the AER has met the level of excellence and this is due to the initiatives of AER to fulfill the attributes of excellence. For example, AER requires applicants engaging in oil and gas activities to prepare and implement the Public Involvement Plan before any drilling or development activity can begin. Oil companies must publish information and data packages related to the project, answer questions and concerns about the projects and discuss low risk alternatives. Upon the submission of an application for permit to drill an oil and gas well or commission of petroleum installations, the AER issues a Public Notice of Application and informs all Albertans of such projects. Stakeholders (persons or organization) issue Statement of Concern (SOC) explaining why and for what reasons the project in question affects their interests. If the AER conducts a hearing on an application, all persons that would be affected by such application are entitled to be heard. In addition, the AER uses advisory and technical committees whose missions are addressing challenges and problems of the Alberta region. The AER has prepared an Alternative Dispute Resolution program through which the stakeholders are given an opportunity to play a direct role in conflict management and resolving the disputes. Regarding the consultation with indigenous people, the AER created Joint Operating Procedures for First Nations Consultation on Energy Resource Activities in cooperation with Aboriginal Consultation Office (ACO) (Alberta Energy Regulator & Government of Alberta, 2018). Regular reports of AER' decisions and hearings are available on the AER' website. Furthermore, the substantial transparency in the AER' financial reports submitted to Department of Energy, the Department of Environment and Parks and Treasury Board is sufficient to provide adequate levels of excellence for the AER.

Although, the majority of Albertans and stakeholders were satisfied with the performance of AER, it is emphasized in the studies and researches conducted by various institutions and organizations active in the field of energy that regulatory overlap, delay in the licensing process, uncertainty and exorbitant licensing cost are still challenges for AER in regulatory reform. Reducing the time and excessive costs needed for all permits necessary for an energy project through integrating all of them into a one-stop automated system, use of risk management tools in licensing process to streamline and expedite the process in low-risk projects and establishing a committee to review and oversight of non-functional regulations are other initiatives proposed by the AER to attract investors.

In general, synergies between the AER and the public and the organization of AER are the key elements in the success of PPR initiatives (Fraser Institute, 2019).

Part II-Petroleum right awarding in Iran from regulatory perspective

Given the clarification of conceptual framework of regulatory architecture and governance in awarding the right of oil and gas exploration and production, in this part, we are about to analyze the awarding regulatory architecture and governance in Iran. Thus, in the first section, the current status will be examined and in the second section, the potential solutions to the challenging problems will be presented.

1-Awarding Regulatory Architecture and Governance in Iran: Status quo

Regulatory architecture of petroleum right awarding in Iran should be analyzed in three levels: at first level, we seek to answer this question that who the awarding regulator is in Iranian legal system. The level B addresses the responsibilities of Iranian Awarding Regulator (IAR) and the level C deals with the separation or consolidation approaches.

Level A: who is the Awarding Regulator in Iran

If we adopt the Norwegian model in Iranian Legal System, it can be said that there are

Several regulators and policy makers in awarding area. These entities include

Ministry of Petroleum (MP), National Iranian Oil Company (NIOC), high commission of supervision on petroleum resources, economic council (EC) and supreme energy council (SEC). In petroleum law 1987 (2011 Ed) there are no provisions about the regulatory framework of petroleum awarding and IAR, instead, according to the clause 17 of article 1 and article 2, Ministry of Petroleum (MP) is the governmental policy maker of the oil and gas sector. Exercising the right of sovereignty and public ownership by the Islamic Republic of Iran over petroleum resources and policy-making, planning, directing and supervising the executive activities in the oil industry is the responsibility of the MP. Hence, in 2012, the parliament passed a law called the law on duties and powers of the ministry of petroleum. This act grants extensive powers to the MP both policy making and regulatory functions. In governance and policy making affairs, the MP is responsible for determining strategic plans and policies of upstream and downstream oil and gas sector, preparing the strategic programs for upstream and downstream oil and gas sector in accordance with the defined policies and monitoring their proper implementation. Such broad legal authority of the MP in policy making also include setting priorities and objective for awarding the right of oil and gas exploration and exploitation.

There are some provisions in this act that directly refer to the regulatory function of MP. According to part 2 and 3 of article 1, Issuance and monitoring of activity permits and exploitation licenses for legal entities authorized to explore, develop and produce all oil and gas fields located in the country are the regulatory tasks of MP. In Article 11, the MP has the authority to decide about the legal regime governing the awarding procedure of common resources of oil and gas. According to his article, awarding and implementation of projects related to exploration, development, production, repair and maintenance of joint oil and gas fields upon the approval of the oil minister (OM) and only in accordance with “NIOC transaction regulations” is excluded from the “law on tendering”. In addition, note 1 of the article states that related to the implementation of this article, the minimum level of local content which is governed by the "law on Maximum Use of the Country's Production and Service Capacity and Protection of Iranian Goods 2019 (local content law)” is determined by the OM. This means that depending on the awarding objective of the government, the minimum level of local content can be more or less than the level prescribed by the local content law (51 percent) .

Other provisions of the law on duties and powers of the ministry of petroleum refers to the regulatory task of MP in E&P awarding area indirectly. Since they give the MP the regulatory and supervisory tasks of the entire oil and gas value chain (part of the article 1) or relates to the awarding area by means of fiscal terms. MP has the authority to design new contract models in order to attract and direct domestic and foreign capital for the development of hydrocarbon fields with priority of common resources of oil and gas. Designing of model petroleum contract affects the awarding procedure indirectly in terms of financial awarding criteria such as the rate of remuneration fee .

The regulatory task of the MP has also been affirmed in the “law on statute of national Iranian oil company” and “the General Terms, Structure and Model of the Iranian Petroleum Contracts (IPC Rules)” a regulation adopted by the Board of Ministers. According to article 39, note 1 of the law on

statute of national Iranian oil company, the major features of oil contracts including price, duration and the application of general condition (governed by IPC Rules) must be approved by the MO. In fact, the MO is playing the role of AR in monitoring and supervision of the awarded petroleum contracts .

As the article 4, note 1 of IPC Rules states the MO can issue guideline and requirement for the awarding procedure. According to this article, Iranian E&P companies whose qualifications have been approved by NIOC can participate in the contract as a partner of a foreign legitimate oil company or companies. The basis for the NIOC approval is the conditions and requirements established by the Ministry of oil. In addition, if at the discretion of MP, an Iranian E&P company is qualified to serve as operator, it can enter into an agreement with NIOC as the second party. In this case, the Iranian E&P company can select a foreign partner but at the manner and according to the terms established by MP. Beyond this, if the NIOC intends to conclude buy-back contract under the IPC Rules, it requires to acquire the approval of the MO on the case-by-case approach. It means that the commencement of buyback awarding procedure under IPC Rules is subjected to the approval of MO.

the law on statute of national Iranian oil company and IPC Rules are also the basis of reference for policy making and regulatory tasks of NIOC. Those articles of the law on statute of national Iranian oil company which can be cited as policy tasks of NIOC are the clauses of 8 and 9 of article 6. Cooperation with the MP in developing the strategic programs for the protection of the countries' petroleum resources, formulating and updating the strategic comprehensive energy program of the country for the potential use of energy resources imply to the role of NIOC in policy making. Since the aspects of this cooperation are not clarified and these are general duties. As we have seen, in this law the other words and phrases such as strategic plans or comprehensive programs are used to express the policy making function.

Adopting the Norwegian model, the commercial function of NIOC is the primary function of it as affirmed in articles 5 and 6 (clauses 1&2) but the regulatory function has been emphasized equally. In article 5, in addition to conducting upstream oil and gas operations, the management and directing the enterprises activities in this area is rests with NIOC. guidance and leadership of subsidiaries for the fulfillment of the company's scope of activities, conducting technical, scientific, commercial and economic studies and designing and holding specialized training courses on the company's scope of activities, Preparation of cultural, environmental protection and passive defense annexes in all projects related to important contracts are the other regulatory tasks of the NIOC.

IPC Rules is another legal basis for the regulatory function of NIOC. Articles 5 and 6, introduces NIOC as the awarding regulator. Because it has the authority to issue instructions and requirements for submitting proposals, to evaluate financial and technical competency of participating companies, to select the qualified company and to sign and award the petroleum contract. Article 5 says that: the contracts subject to this Rule shall be concluded between two parties in accordance with the legislations and regulations governing the transactions of the NIOC and after having obtained the necessary permits from the competent authorities by the NIOC. Article 6 describes the implementation of the contracts subjected to this Rule which in fact, it implies to the awarding of the contracts. According to this Article, for the allocation of the first category of the contracts subjected to this Rule (E&P contracts), NIOC determines the minimum exploration obligations and then invites the qualified companies to submit their proposals. For the development and production of an oilfield or utilization of EOR/ IOR in a certain oilfield, NIOC provides a preliminary framework for development planning and then invites the qualified companies to submit their proposals. Such framework document serves as a guide for bidders in both categories of the contracts and does not prevent oil companies from offering new proposals. The level of technical and financial competence of the domestic and foreign companies will be assessed by the NIOC.

The responsibility to delineation of exploration block or area has been assigned to the NIOC according to article 1 in a vague manner. The NIOC defines the geographical area which has been approved by the MP and selected for exploration operations and is the contract area awarded to the second party in order to discover commercial field or reservoir. In fact, it not clear whether the approval of MP is an attribute of regulatory functions or not. The periodic reporting requirement and disclosure obligations are not explicitly mentioned in the Rules but the NIOC is in charge of monitoring of the proper implementation of petroleum contract provisions according to article 6 (assignment of the awarded contract to the other companies), article 7 (overseeing the project activities through a joint contract management working group, contracting out decisions), article 11 (qualification approval of oil fields Iranian operator companies, approval of technical and operational instructions and plans of the production phase, issuance of well workover permit) and article 12 (approval of disclosure of information).

Monitoring and supervisory of the awarded petroleum contracts is also the responsibility of “high commission of supervision on petroleum resources” and “economic council (EC)” and this is another reason for pluralism of awarding regulators. The petroleum law 1987 (2011 Ed) established the commission and mandated with the evaluation of the text, amounts of financial commitments, quantity of outputs and products and time duration of major oil and gas contracts in order to protect the revenues extracted from petroleum resources. This commission reports to the parliament and the supreme leader. In 2019, the Cabinet approved a bylaw entitled as the identification of major oil and gas contracts and their conclusion. In this article, another regulator introduced for supervisory task. According to this bylaw, technical, economic and environmental justification of the project, cost estimation and implementation plan and returns on investment, government commitment ceiling and duration of the contract and project execution plan of any contract concluded under IPC Rules must be approved by EC.

Multiplicity in governmental policy making of awarding area was created by the establishment of supreme energy council (SEC). In 2002, the SEC was established by the law amending articles 2 and 4 of the law on the third economic, social and cultural development plan of the Islamic republic of Iran and the formation of the supreme energy council in order to integrate the energy sector policies of the country, make the necessary coordination for full utilization of the country's capacity in the energy sector, optimize the production and consumption of energy carriers and determine its rules and patterns and also to develop policies and rules for reduction of environmental pollution resulting from energy production and consumption. Furthermore, in 2011, the parliament passed the law on energy consumption pattern reform and by which decision making and policy making function in the energy sector including the optimization of crude oil and natural gas production assigned to SEC. nonetheless, since its establishment until now, the SEC couldn't be able to provide the desired integration and focus. So that it had convened 6 meetings and issued only 2 resolutions since its inception. The most important reasons for failure are lack of regular meetings of the SEC, conflicting of interests and non-acceptance of the other members' opinions, contradiction of the laws and regulations establishing the legal entity of the members, failure to modify the parallel institutional structures after the establishment of the SEC and the SEC structural failures.

In general, in current status, there are several policy makers and regulators in awarding area: the MP, NIOC and SEC are the primary policy makers and MP, NIOC, EC and high commission of supervision on petroleum resources are the awarding regulators.

Level B: the responsibilities of Iranian Awarding Regulator: because of multiplicity in awarding policy making and regulatory functions, it is not unlikely to say that the responsibilities of the AR and its governance are not clear in the Iranian legal system. The existing legal provisions only limit to pre-

qualification of the interested oil companies, designing the awarding procedure and monitoring the compliance with oil and contracts.

Level C: Consolidation or Separation approach: although the MP has contributions in safety and environmental protection regulatory functions, we should assume the latter function for supreme council for environment (SCFE) and Department of Environment (DOE). It can be inferred two views from the law on environmental protection and improvement; first, the SCFE is the primary environmental protection regulator and the DOE is its administrative body. According to articles 1, 2 and 3 of the law on environmental protection and improvement, the DOE is under the direction, supervision and control of the SCFE. The SCFE has the following responsibilities in addition to the obligations specified in the law of the hunting: defining and delineating the boundaries of national parks, national reserves, nature monument, wildlife sanctuaries and protected areas and issuance of the license for exploration and exploitation of mines in the abovementioned areas. The legal requirement regarding the preparation of environmental impact assessment report established by the “regulation for assessing the environmental impacts of large production, service and development projects 2011” is the SCFE’ policy initiative. The SCFE was abolished by the presidential decree in 2007 and its powers and obligations assigned to DOE. But then went back to its responsibilities in 2013. During these times, the DOE has undertaken the regulatory function as ultimately, cabinet passed the regulation for the environmental impact assessment on the proposal of DOE.

Another view is that the DOE is also an environmental protection regulator. Because according to the article 6 of the law on environmental protection and improvement, the DOE has the authority to propose the requirements and standards to prevent the environmental pollution. In addition, other legislations such as the law of hunting and waste management act grant the DOE the authority to develop the standards and instructions.

In general, the MP is a regulator which undertakes the licensing, safety and environmental protection functions based on the consolidation or unification approach and DOE and SCFE are environmental protection regulator based on the separation approach. The following figure shows the petroleum right awarding architecture in Iran.

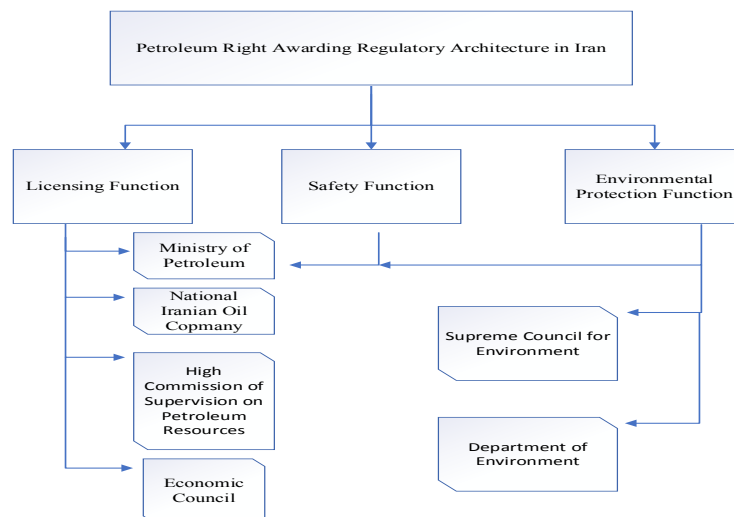


Figure 1

petroleum right awarding architecture in iran

2. Towards excellence: potential solutions

As we have seen, regulatory architecture of petroleum right awarding in Iran is messy and confusing and needs reform. But it should be noted that in PPR model, the consolidation or separation of regulatory tasks are irrelevant and what is important is the implementation of PPR model in organization, actions and performance of the AR. However, given the supreme leader's approach to sustainable environmental policy integration, fruitless attempt to establish the Ministry of Energy and the failure of supreme energy council in its performance, we propose the establishment of a regulator for the oil and gas sector integrated the licensing, safety and environmental protection functions and then adopting the governance structure of AER, Norwegian Petroleum Directorate (NPD) and UK OGA, the excellent oil and gas regulator of Iran can be based on the PPR foundation. We will be faced with challenges and obstacles along this path which are multiplicity in licensing, safety and environmental regulators and lack of distinction between policy making, regulatory and commercial functions. To solve these challenges, the laws and regulations determining the competence of MP, NIOC, DOE, high commission of supervision on petroleum resources and SEC are required to be modified. In the proposed regulatory reforms, the MP should just carry out the policy making and assign the licensing, safety and environmental protection regulatory functions to the new regulator or oil and gas regulator. The NIOC should just limit its function to commercial function and hand over the licensing responsibilities and providing inputs to policy development to the new regulator. Laying down the HSE standards and guidelines is the mandate of the new regulator and in this regard, it is just required to cooperate with the DOE and other organizations in charge of environmental protection. Adopting the governance structure of AR in Alberta, Norway and UK, the new regulator reports to the MP and MP reports to the parliament. Therefore, the responsibilities of the high commission of supervision on petroleum resources should be assigned to the new regulator and then be dissolved.

Regulatory reforms allow us to pass the statute of the new oil and gas regulator through the parliament keeping in mind that its organization and governance should fall within the PPR framework. Therefore, there is a single regulator mandated with the licensing, safety and environmental protection regulatory functions whether which is a government agency like NPD or an independent agency from the government body like AER. As the OECD guidelines and standards on regulatory policy states being an independent regulator does not necessarily mean to be an entity outside of the government. Rather, applying the components of the independence must be assured in the governance model of AR. The components of independence of a regulator are protecting the regulator's relationship with government, industry and stakeholders, funding and stuff from lobbies and undue influence (OECD Publishing, 2014, OECD Publishing, 2017, OECD Publishing, 2016). In fact, the OECD guidelines and principles on independence and preventing the regulator from political pressure are similar to PPR model unless the PPR model examines the excellence attributes in a casual manner.

The new oil and gas regulator as a government corporation should have a regulatory system that guarantee the accountability and institutional cohesion. The responsibilities of the board, the chair of board and Chief Executive Officer should be clear as it is in AER and UK OGA. To avoid repeating the experience of UK OGA on non-transparency of relation between the OGA and DECC, the Business Plan of the new regulator should address the interaction between the regulator and MP and the status of ministerial order in the governance structure. It is required to establish a hearing commission (like Alberta) in the regulatory body to adjudicate the regulator's decisions related to petroleum right awarding and resorting to courts would be an alternative for petroleum right applicants and any other who is affected by the decisions of the regulator.

The new regulator should set up Technical and specialized committees necessary to discharge of its duties. One of these indispensable committees is the committee of licensing the right of exploration and production of oil and gas. The corresponding of this committee in the organization of AER is Alberta

Energy's Tenure Branch (Alberta Government, 2016). Other committee is the committee on petroleum policy making which provides policy making inputs for government. Therefore, the NIOC should quit the role of data collection and providing policy making inputs. However, it can contribute in this function through the cooperation with Tenure Industry Advisory Committee. The proper performance of the licensing committee depends on to what extent the conceptual responsibilities of the regulator has been mentioned in the statute of the regulator.

Another important issue which affects regulatory excellence is the model of governance. Even if we follow the flexible organization of the NPD and create professional teams with designated mandates, accountability of the leader of each team to the executive management is important.[†] Senior managers and core bodies of the regulatory organization are required to be accountable against the MP or any sponsoring department of the O&G regulator. (UK oil and gas authority framework document, 2015) such accountability realizes itself through holding coordination meeting and regular periodic reporting to the MP (usually six months or one year). The regular periodic reporting to the public, interested groups and stakeholders which are influenced by petroleum right licensing decisions and clarifying the reasons for granting or denying the licenses -as the AER publishes these reports on its website- are effective tools to achieve the PPR's empathic engagement attribute. In addition, informal communication with the public, and stakeholders using mass media and non-profit networks will increase the effect of empathic engagement (UK OGA, 2021).

The new oil and gas regulator must require the NIOC or other oil companies interested in acquiring the right of oil and gas exploration and exploitation to prepare Public Involvement Plan prior to applying for the contract and to conduct public consultation process as it is common in Alberta regulatory system. Using risk analysis methods and practices in awarding petroleum contracts, creating a one-stop automated system to integrate all permits required for oil and gas operations and setting up a review committee to identification of non-functional regulations will smoother the licensing process. Eventually, given the political economy of the petroleum sector in Iran, it is recommended that the new oil and gas regulator of Iran provide the necessary supply of funds for the organization through its service commissions and certain percent from the total income after deducting costs.

Conclusion

Most oil producing countries around the world including Iran face challenges in managing their petroleum sector in order to create wealth for their people. One of these challenges is inadequate design of regulatory architecture and governance for development, implementation and adjudication of petroleum right awarding. While in other countries like UK, Norway and Alberta, the awarding regulatory design is constantly updating and moving towards excellence, the regulatory architecture and governance of Iran is far from the attributes of regulatory excellence. The current status has some advantages and disadvantages. At first glance, it seems that the existing multi-layer compliance monitoring is an advantageous strategy to protect the public interest in awarding E&P right. But in fact, this strategy results from the misunderstanding of the awarding regulatory design, its architecture and governance. There are multiple regulators in awarding and petroleum resource management without any transparency in their relationship with each other and in the governance of their behavior. MP is the key actor in regulatory management of petroleum right awarding whose responsibilities overlap with other entities like NIOC, DEO or SCFE. Overlaps of awarding responsibilities makes the investors confused and makes the pursuing of public interested difficult. As a result, the practical solution to address the current incoherence is establishing a single regulator for oil and gas sector mandated with

[†] - <https://www.npd.no/en/about-us/>

licensing, safety and environmental regulatory functions which relies on public excellence in its organization, actions and performance.

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