

Governance Mechanisms for the Electricity Market in Argentina - Critical analysis and international comparison

Martin Rodriguez Pardina¹

Introduction

The vertical and horizontal separation within the electric industry constitutes a radical example of change to a market structure in order to allow competition and to minimize its regulatory burden.

The traditional segmented organization of the electricity sector was based on vertically integrated monopolistic companies, responsible for the whole of the production process. Under such a scheme, power generation, transmission, distribution and trading were left in the hands of a sole company, which often was in charge even of determining the sector's policies. Such an organization was consistent, on the one hand, with the existence of natural monopolies in some activities (transmission and distribution) and, on the other hand, with the strong need for coordination between all activities, which was typical of the prevailing technologies in such sectors.

Starting in the mid-'80s, major technological and institutional changes took place, resulting in a change to the sector's organization pattern. This transformation was explained by diverse reasons. First, it was a result of technological change in the production activity. Following the introduction of combined-cycle gas plants in the '80s, the size of an optimal plant was increasingly reduced while the standardization level in technology was enhanced. Second, as to supply, the introduction of mass data processing systems reduced coordination costs and allowed for the introduction of competition - at the level of larger users, at any rate.

The central goal of the vertical disintegration process that took place within the electricity sector in numerous countries was the introduction of competition in those segments where that was deemed feasible and advantageous. The conditions that must be met for this separation to be economically efficient are twofold. First, potentially competitive activities must be effectively competitive. Second, monopolistic activities

¹ Macroenergia S.A., marp@elsitio.net

must be regulated. For only thus will it be possible for efficiency gains obtained in the competitive activities to reach the end consumer.

After Chile had led the way in the late '70s and early '80s, starting at the beginning of the '90s a number of Latin America countries launched the transformation of their electricity sectors. Thus, Argentina undertook a deep restructuring process on its electricity industries in 1992; Bolivia, in 1994; Peru, in 1993; Colombia, in 1994; Brazil, in 1997; Uruguay, in 1998; and Venezuela, in 1999.

In Argentina, the restructuring process of the electricity sector that started in 1992 fares among the most successful, both when compared to other sectors in Argentina and when compared to other electricity sector reforms in the world.

In the ten years that have elapsed since this transformation, we find improvements in efficiency at all stages (power generation, distribution, transmission and supply), with steady or diminishing prices in real terms and with enhanced reach and service quality.

As to generation, this transformation led to the conformation of one of the most competitive markets in the world, with over forty actors, a very low concentration of supply and a significant access of new actors. In time, this translated into sharp falls in the spot market prices, into substantial improvement in the availability of the thermic industrial park, and into sizeable increases in the installed capacity.

The institutional organization of the market, however, showed a series of problems, especially regarding governance rules, which may result in a serious threat to this scheme's long-term sustainability.

The functioning of the wholesale market in Argentina reveals some serious shortcomings in terms of institutional arrangement, owing mainly to design flaws in the transformation process. This is also the case in the majority of the other countries in the sub-region.

The purpose of this work, then, is to focus our attention on this particular side to the sector's organization: the market governance mechanisms of the wholesale electricity market. We will compare the Argentine experience with developments in other competitive electricity markets.

Electricity Sector: Special Features

The public sector restructuring process implied a transformation, from a hierarchical organization into one based primarily on market transactions.

Williamson (1975) characterizes the distinction between both kinds of organizations in the following terms: while market transactions involve exchanges between autonomous economic entities, in hierarchical transactions we find a sole administrative entity comprising both ends of the transaction – a certain type of subordination prevails, typically resulting in consolidated property. Thus, the transformation of a hierarchical organization into a market-regulated one constitutes an attempt at replacing administrative decisions by price signals –as far as this is possible. Given the specific features of the electricity sector, such substitution is not comprehensive, rendering it necessary for both kinds of mechanisms to co-exist within the organization.

This co-existence of the price and of the command and control mechanisms in the electricity sector is not a completely new phenomenon. Coase (1987) describes, among multiple cases of intra-firm markets, United Kingdom's experiences with its electricity sector in the '70s. Its working was as follows:

“The production of power plants in England and Wales is co-ordinated (*notice the term*) by a National Control Centre in London through seven Regional Centres... In determining the daily charge, the National Control Centre becomes, in fact, an auction floor, where the National Control Centre engineer requires the Regional Centres to inform the prices at which they may supply a certain amount of kilowatts at given periods of time for the following day... As far as possible, it accepts the best offer, so the Regional Centres plan the operation of their generating plants based on the power exchange schedule prepared by the National Control engineer”

The specific technological features of the electricity sector make it impossible for the requisite autonomy between economic entities -presented by Williamson as a characteristic of market transactions- to occur.

Externalities existing in the transmission network, which cause an action by any market agent to have a physical effect on the whole of the system, come as a first

limitation on specific interdependence for the electricity sector. The need to guarantee the system's stability and reliability implies, on the other hand, a need for a centralized dispatch system with clear-cut command and control powers over the actions of every participant in the system.

The need to balance constantly and instantly the generation supply with the power demand, as well as the physical impossibility of storing electricity in an economically efficient manner, renders the implementation of coordination based solely on price mechanisms impossible.

Therefore, even when the organization of the electricity sector has adopted competitive models as to generation and supply, out of necessity these market mechanisms coexist with top-down subordination relations. Thus, it is necessary to establish a very specific set of rules governing the functioning of electricity markets.

In very simplified terms, such functioning rules for a competitive electricity market may be described as mechanisms emulating voluntary transactions, ex post actions taken within a command and control context governed by a centralized dispatch authority.

The inevitable necessity for such rules gives rise to the issue of governance, which we will address here. The thing is, you may have good rules or bad rules, but you may not have no rules at all². As a result, the mechanism for establishing and amending rules is of primordial importance in order to guarantee the long-term sustainability of a reform, more so than any specific rule in any given time or place.

The issue of Governance in the Electricity Sector

Given the special features of the electricity market, which were discussed in the previous section, it is clear that the determination of the governance mechanism – meaning “*the rule under which all rules are defined*”- is of key importance to the performance of the electricity system³.

This set of rules is one of the key elements for the effective functioning of the electricity sector. Thus, for instance, Stoff (2002) identifies a deficient design of rules as

² Hogan WW (2000) – *ibid*.

³ This very problem may be found in other industries showing network features. Hogan discusses examples such as Automated Teller Machines (ATM), the Financial Accounting Standards Board, or the Interstate Councils in the US. See Hogan et al (1996).

the most frequent (and costly) of market flaws within the electricity sector. In this regard, the author states⁴:

“In spite of the fact that the most serious of market flaws are typically derived from structural problems, while architecture problems come second in importance, the most numerous problems are those involving rules and their cost can be astounding. The design of rules is an art, rather than a science, but economy has two guiding principles to offer: reflecting the result of a classical competitive market, and designing markets so that competitors find it profitable to openly state their prices honestly. Simplicity is another goal well worth pursuing, yet notoriously difficult to define”.

In a paper for the World Bank, Barker, Tenenbaum and Woolf (1997) (hereinafter BT&W) formulate an international comparison of the functioning rules and decision-making (governance) mechanisms for electricity markets outside the US. This work may well be taken as a first reference point for a comparative analysis on the working of electricity markets.

The principles set by BT&W in order to achieve the proper working of an electricity market –regarding both processes and results- are:

- The pool is not controlled by a market actor or by one class of actors.
- It is a fair (i.e., non-discriminatory) and efficient market
- The transmission system achieves requisite reliability levels.
- The decision-making process is transparent.
- The pool and the functioning rules may be changed within a reasonable term.
- Functioning costs (governance) are minimized.

Similar goals are presented by the Federal Energy Regulatory Commission (FERC)⁵ in the United States and by the European Directives on transmission.

In their international comparison of cases, the authors identify four basic models:

Model 1. Multi-class Stakeholder Board. This model shows the club or legislature approach to the governance issue. The collective decision-making process strives to achieve independence through the allotment of voting rights and rules in order to balance the competing interests of the market stakeholders.

⁴ Stoft (2002), page 93.

⁵ FERC Order 888 sets the basic principles regulating the functioning of the Independent System Operator (ISO), including, inter alia, fair and non-discriminatory governance, financial independence of ISOs from the market stakeholders, a pricing system promoting efficiency, and establishing and implementing an alternative voluntary system for conflict resolution.

Model 2. Non-Stakeholder Board. This pattern aims at achieving independence in the decision-making process. The goal is to create a Board of directors representing “Public Interest” in a straightforward manner. The risk is for decisions to become political and out of touch with reality.

Model 3. Single Class Board. In this scheme, a single class (typically the generation sector) controls the decision-making process. This is the traditional organization mode in US.

Model 4. For profit corporation with no affiliation to stakeholders. This is the model followed by the Nord Pool (Norway and Sweden), a for profit corporation in the hands of the Governments of Norway and Sweden.

According to BT&W, the first model is currently prevalent, and it is the one adopted in most cases in the initial stages of the reform process. However, collective decision-making demands the definition of voting mechanisms presenting several obstacles.

One of those problems is the definition of relevant classes, especially when individual actors seem to belong in more than one class (i.e. generation and distribution). The heterogeneous nature of some classes (especially users) is an additional problem worth pondering.

Another issue, typical of this kind of organization, is the existence one class holding veto power, which in reality may result in the prevalence of a minority with such veto power. In the presence of rules granting each represented class this kind of power over decisions made by the whole group, it becomes hard to reform existing rules – unless a third-party “arbitrator” (maybe the regulatory authority) is appointed with the power to override the veto.

Finally, the most serious problem faced under this mode of organization is that, in many cases, the outcome is a Board of directors with no actual authority. Decision-making by all stakeholders in a multi-class scheme often results in slow and intricate processes that increase the cost of governance.

From their study, BT&W conclude that the most efficient mode of organization seems to be a two-tier approach to governance, in which a Single Class Board must answer to an independent Board having ultimate decision-making power.

Restructuring and Governance System of the Electricity Sector in Argentina

The transformation of the electricity sector in Argentina was formulated in the 1992 Act 24065, which established the regulatory framework for the electricity industry in the country.

The main feature of this transformation was the intense restructuring the sector was subjected to, rather than the depth of the privatization process. Vertical and horizontal separation was a radical example of changes to the structure of a market in order to allow for competition and to minimize the regulatory burden.

In the late '80s in Argentina, the large number of corporations functioning within the electricity sector appeared as one of the main problems concerning the development of the energy sector. From the point of view of efficiency, the existence of several corporations limited the benefits of vertical integration and of scale economies. On the other hand, serious troubles in the coordination between those corporations were evident, while the lack of certainty along the liability lines intensified the principal-agent problems which are by themselves significant in every public endeavour.

At the beginning of the State Reform process, in mid-1989, an initiative took form suggesting a solution for this coordination problem via the consolidation of the companies. The State Reform Act enables the Executive Branch to create a Federal Electricity Power Corporation involving the existing *Agua y Energía Eléctrica* (Water and Electricity Power), Hidronor, and the generation of other national companies. Electricity distribution and trading services, on the other hand, were subject to concession contracts, the cooperative sector being given priority.

This change of pace in the political orientation of the administration, which comes to rely on a deep deregulation of the economy, favouring market mechanisms, led to an alteration in the restructuring policies for the energy sector. Immerse in a global process of liberalization and deregulation of the economy, the new Ministry of Economy team discards the idea of a single federal power corporation and adopts a market pattern, basically based on vertical and horizontal separation of the industry in order to minimize the regulatory burden.

Following partially the models adopted for the electricity sector in Chile and United Kingdom, and aiming at allowing competition in those activities where possible, the new statutory framework for electricity separates the industry vertically in its

activities: generation, transmission, distribution and supply (or trading). While the generation and the supply activities show a strong competitive potential, transmission and distribution constitute “natural monopolies”.

In the case of Argentina, the choice between the single corporation and the market was solved in favour of the latter due to a cluster of reasons, most important among them the global process of market opening and deregulation. Nevertheless, it may be argued that, particularly in the electricity sector, the very existence of several companies paved the way to the adoption of the market solution, since there were proven mechanisms for the technical coordination between companies already in place. We must particularly emphasize the existence of the National Transmission (*Despacho Nacional de Cargas – DNDC*), responsible for the functioning of the hydro-thermic coordination of the interconnected system. Here, the market model may be regarded as an extension of the technical coordination already in place into an economic coordination between independent units, which was left to the market.

The main goal of the vertical disintegration process that took place in the energy sector was to make competition possible in those activities where it was deemed feasible and desirable.

Chart : Electricity Sector Restructuring

Original corporation	Activities	New corporation	Activities
Servicios Eléctricos del Gran Buenos Aires (SEGBA)	Generation Distribution	Central Puerto Central Costanera Central Dique Central Dock Sud C. P. de Mendoza Edenor Edesur Edelap	Generation Generation Generation Generation Generation Distribution Distribution Distribution
Agua y Energía Eléctrica (AyEE)	Generation Transmission Distribution	C.T. NOA Central San Nicolás C.T. NEA Central Sorrento Transener	Generation Generation Generation Transmission
Hidroeléctrica Norpatagónica (Hidronor)	Generation Transmission	C. El Chocón C. Piedra del Aguila C. Alicurá C. Planicie Transener	Generation Generation Generation Transmission

The causes for the active competition within the generation market that has taken place in this first ten years since the reform, can be traced back, not only to the right disintegration policy adopted at the time of the privatization - which prevented the creation of dominant stakeholders in the market (as was the case with the United Kingdom)- but also to the free entry of new actors – ultimate condition for the existence and sustainability of competition.

The other potentially competitive segment in electricity is large consumers supply. Direct purchasing of power from the producers on the part of end users is an activity where there are no great sunken costs – then, it can be competitive. The greater cost of this activity lays in the purchase and sale contracts, and as long as there is a market for them, it is possible for agents to enter and exit the market at no great expense.

This ability of users to contract their power needs directly from producers or intermediaries is guaranteed by the regulatory framework of the electricity sector. It is based mainly in the principle of open access established by statute on the monopolistic activities (transmission and distribution).

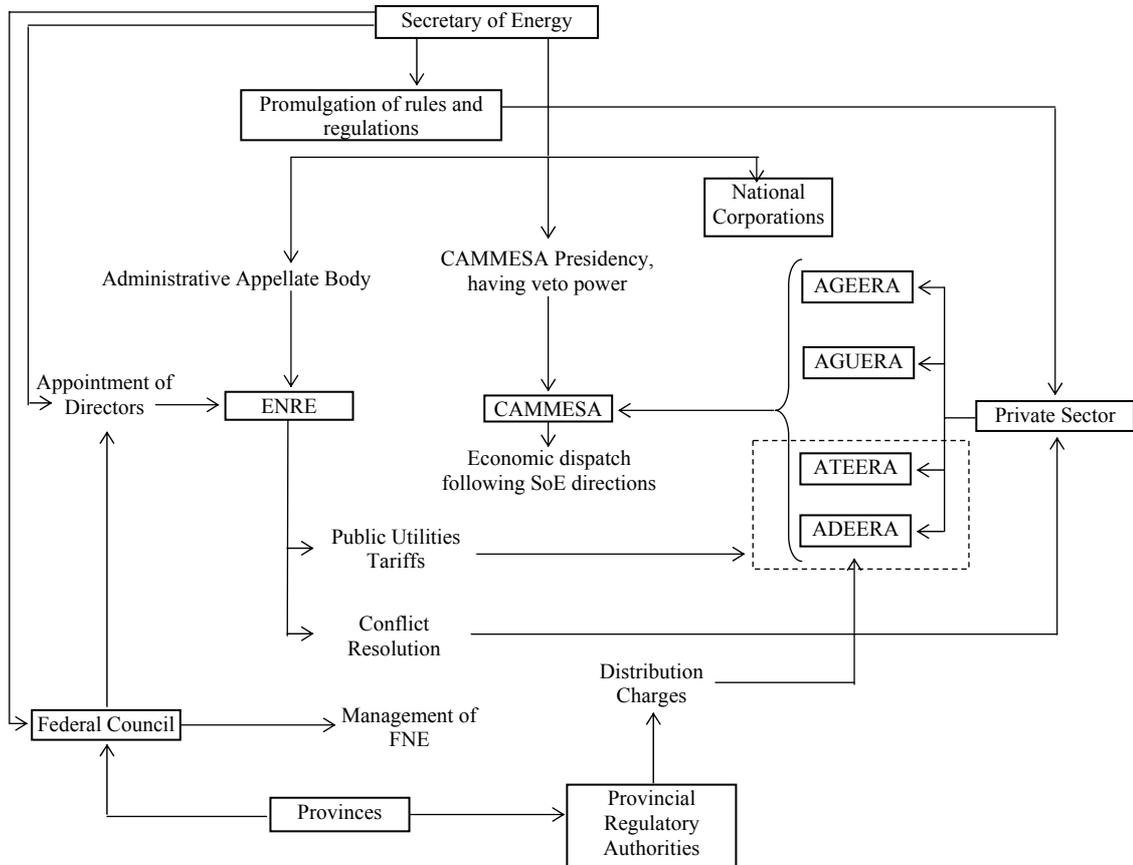
As to electricity transmission, an open access mechanism was adopted, according to which the concession holder is not accountable for the system expansion – i.e. its responsibility is limited to the operation and maintenance of the existing installations on a non-discriminatory basis. Furthermore, in order to limit the monopsonistic and monopolistic power held by the transmission network, the terms of the concession contract ban the concession holder from buying and/or selling electricity power, its activity being limited to transmission. The total separation of this activity from all other activities in the electricity sector and the statutory interdiction on reintegration are also intended to ensure a level play-field for competition in generation and supply.

As to electricity distribution, the mode of access has to do with what is called by literature a “common carrier”, meaning the corporation is responsible for any expansion necessary to meet the demand within the area of its concession. On the other hand, the activities of distribution and supply under the concession holder were not separated, not even from the accounting point of view. Although the aim was to establish a tariff

system in which the supply were financially neutral for the distribution activity, the lack of separation between a monopolistic activity (distribution) and a competitive one (supply) lessened the transparency of the latter. For, as discussed above, there were incentives for the distributor to discriminate against its competitors in the supply activity.

As from the electricity sector reform in 1992, the stakeholders in the sector are the private agents and public and private institutions displayed in the following chart.

Governance structure in Argentina



The Secretariat of Energy, as a representative of the Executive Branch, is in charge of several functions. First, it is responsible for the promulgation of rules and regulations governing the wholesale electricity market, and sits on the CAMMESA Board of directors holding veto power. The functions of the Electricity Wholesale Market Managing Corporation (*Compañía Administradora del Mercado Eléctrico Mayorista* – CAMMESA S.A.) will be discussed below.

The Secretariat of Energy also has indirect competence on regulatory matters. On the one hand, it is responsible for the appointment of three Directors to the National Electricity Regulatory Agency (ENRE) out of a total of five. It is also the administrative appellate body for all decisions made by the ENRE. In addition, it has functions such as monitoring State-owned generation companies (hydraulic generation binational centrals -*Yacretá* and *Salto Grande*- and the nuclear power generation company – *Núcleo Eléctrica*. Finally, it has a seat on the Federal Electricity Power Council (*Consejo*

Federal de la Energía Eléctrica – CFEE) with responsibility over the management of the *Fondo Nacional de la Energía* (National Energy Fund), among others.

The National Electricity Regulatory Agency, ENRE, was created by Act 24065 (section 54). It has the competencies of a Regulator and is responsible for the enforcement of the objectives the law prescribes for the sector (section 2). These include: protecting the users' rights; promoting competitiveness in the demand and production electricity markets and encouraging investments in order to secure long term supply; promoting operation, reliability, equality, freedom of access, non-discrimination and widespread use of the services and electricity transmission and distribution facilities; regulating the electricity transmission and distribution activities, making sure the tariffs applied to services are fair and reasonable; advancing efficient supply, transmission, distribution and utilization of electricity, setting adequate tariff structures; and encouraging private investment in production, transmission and distribution, ensuring markets competitiveness when feasible. Additionally, ENRE has competencies regarding conflict resolution.

Five Directors are appointed to the ENRE, three by the federal government and two upon a presentation by the Provinces through the Federal Electricity Power Council.

In short, competencies of ENRE within the new electricity sector scheme include a wide range of concerns, in its fundamental role of protecting the users' rights. Among the most important are the establishment of public utilities tariffs (transmission and distribution) and the enactment of quality standards and service rules and regulations.

The ENRE also performs duties that have a direct effect on the functioning of the electricity market, since it is responsible for preserving competition and authorizing merges and acquisitions⁶.

Its competency regarding conflict resolution between agents is one of the key elements in its relationship with the electricity market governance mechanism. Since any conflict between stakeholders (carriers, distributors, producers and large users) calls for ENRE intervention, the construction of norms is largely subject to its performance.

⁶ Functions in this regard were later modified through Act 25.156 (known as Defense of the Competition Act), which creates a Defense of the Competition Tribunal unifying responsibility over such issues.

The fact that ENRE decisions may be appealed before the Secretariat of Energy is nevertheless a limitation to the independence of the ENRE and to the role it may play in the issue of the generation market rules. Naturally, this strengthens even further the central role of the Secretariat in the electricity market.

Provinces, which hold the conceding power as to electricity distribution through concession contracts or, in some cases, are direct owners of electricity companies, represent another stakeholder in the electricity system. An important part of the provincial responsibility is channelled through two mechanisms. In the first place, through the provincial regulatory authorities, having competencies to fix distribution tariffs at provincial level. In the second place, through the CFEE that manages the Energy National Fund and nominates two directors to the ENRE Board.

Private actors are, finally, the other class of stakeholders participating in this new electricity sector organizational scheme. Section 3 of the Act dictates that transmission and distribution of electricity – declared to be public utilities - must be carried out principally by the private law artificial persons who have been granted the corresponding concessions by the Executive Branch. The role of the State in both activities is subsidiary. For the relevant law dictates that it must provide transmission or distribution services –by itself or through any of its agencies or dependent companies - in order to warrant a continuous service, in the event that no bidders were found fit to be granted the relevant concession contracts after all selection procedures provided for by the aforementioned Act had been fulfilled.

Power generation is declared to be of general interest and subject to competition, with free access and exit of actors into and out of the market. Section 1 of the Act provides that the electricity energy generation activity, responding solely to the free play of demand and supply, must be regulated only as to those questions and circumstances that have an effect on the general interest.

State-owned generation centrals, both thermic and hydraulic, have been privatized. The State has only kept its interests in binational hydraulic centrals (*Yacyretá* and *Salto Grande*) and its ownership of nuclear generation.

The functioning rules for the generation wholesale market were regulated in very broad terms by the Act, leaving the enactment of all rules regarding transmission dispatch to the Secretariat of Energy.

In this respect, section 35 of the Act establishes that technical dispatch for the Argentine Interconnection System (*Sistema Argentino de Interconexión - SADI*) shall be under the National Transmission Dispatch (*Despacho Nacional de Cargas – DNDC*). The DNDC is an agency to be incorporated as a stock corporation or *sociedad anónima*, its capital stock consisting of non-endorsable nominative stock. Initially, the Secretariat of Energy shall be its majority shareholder, and the various stakeholders in the wholesale electricity market (*Mercado Eléctrico Mayorista – MEM*) may hold a minority share. The State's stake, initially to be majority share, may be later reduced by the Executive down to a total ten per cent (10%) of the capital stock, as long as such percentage secures the State with participation and veto power on the Board of Directors.

The same section provides that the Secretariat of Energy shall determine the rules and regulations to be followed by the DNDC in the performance of its duties, which shall guarantee transparent and equitable decisions in accordance with the following principles:

- a. Allowing for the discharge of contracts freely entered into by the parties, which are understood to be producers (except for those included in section 1 of Act 23.696 and for the Argentine share in binational centrals), large users and distributors (futures market).
- b. Dispatching the required demand, based on recognition of energy and power prices established in the following Section. Market actors must explicitly commit themselves to accepting such prices, in order to be entitled to supply or to receive electricity that has not been freely agreed upon by the parties.

Section 36 of the Act establishes that the Secretariat of Energy shall enact a resolution dealing with the regulation of economic dispatch for energy and power transactions. That regulation shall provide for producers to charge a uniform tariff for all energy sold in each delivery territory set by the DNDC, based on the economic cost of the system. Its appraisal shall take into account the cost that undelivered energy represents to the community.

Pursuant to the Act, an agency was created to be responsible for the management of the market, called CAMMESA S.A., which was incorporated as a private law non-for-profit stock company (*sociedad anónima*). Its shareholders are: the Electric Power

Producers Association of Argentina (*Asociación de Generadores de Energía Eléctrica de la República Argentina* - AGEERA), the Electric Power Larger Users Association of Argentina (*Asociación de Grandes Usuarios de Energía Eléctrica de la República Argentina* - AGUEERA), the Electric Power Distributors of Argentina (*Asociación de Distribuidores de Energía Eléctrica de la República Argentina* - ADEERA), and the Electric Power Carriers Association of Argentina (*Asociación de Transportistas de Energía Eléctrica de la República Argentina* - ATEERA) plus the Secretariat of Energy (SoE).

Each party holds 20% of the shares, the State having reserved for itself the Presidency of the corporation (the Secretary of Energy) and veto power over all corporate decisions. Market regulations, in this case, are dictated by the Secretariat of Energy (as Resolutions), their implementation being in the charge of CAMMESA.

Under Section 3 of its by-laws, CAMMESA's objective is the technical dispatch of the SADI following the provisions of the regulatory framework for the sector. Besides its main goal as to the technical and economic dispatch of the SIN, organizing the satisfaction of the demand at the lowest cost compatible with the volume and quality of the available energy supply, CAMMESA has been created to fulfil the following public interest functions:

- Carrying out the economic dispatch in order to provide economy and rationality to the management of power resources.
- Coordinating the centralized operation of the SIN in order to guarantee its safety and quality.
- Managing the MEM, ensuring transparency through the participation of all relevant stakeholders and through enforcement of the pertinent rules and regulations.

CAMMESA's management and direction are in the charge of a Board comprised of ten Directors. Each Association is entitled to appoint two Directors, amounting to a total of eight. The same or a lesser number of Alternate Directors may be appointed.

The Federal State appoints the Secretary of Energy to the Board, and up to two Alternate Directors. The Chairman of the Board is the Secretary of Energy. It is mandatory for all Board meetings and Shareholders Meetings to be chaired by him or her personally or, in the event of his or her absence, by an Acting Chairman specially appointed by the State to attend that meeting in his or her place.

Finally, the tenth Director, holding the position of Vice-chairman of the Board, is appointed (and discharged) by a Regular Shareholders Meeting, with the necessary vote of the State plus the assenting vote of a minimum of three of the remaining Share Classes.

Board decisions are adopted by majority of all votes issued by the Directors in attendance, as long as this majority includes the vote of the Chairman of the Board (Secretary of Energy or the State-appointed Acting Director). In the event of a tie, the Chairman of the Board shall have a double vote.

The Board appoints a six-member Executive Committee acting under its supervision. One of them shall be the Vice-chairman Director and the remaining five, one Director for each share class. The representative of the State may be the Director (Chairman) or any of the Alternate Directors. The Executive Committee shall be chaired by the Vice-chairman. Members of the Executive Committee shall remain in their positions for the duration of their appointments.

The Executive Committee's by-laws shall be enacted by the Board. There are specific limitations in place, regarding the amendment of membership, functioning and/or the voting system in the Executive Committee.

When looking into the Argentine electricity market mechanism from BT&W's categorization, we find the governance system corresponds with that of the Single Class Board system (Model 3), that Class being the government. This point demands further clarification.

Even though, as it follows from its previous description, CAMMESA includes a representation of the producers, larger users, distributors and carriers associations, there are a series of elements present in its functioning that prevents this organization from being classified as a Multi-class Stakeholder Board (Model 1).

First, CAMMESA has no capacity to establish the functioning rules for the market, which are enacted by the Secretariat of Energy. From this point of view, and given the intention to analyze the rule by which all rules are defined, the relevant element is the lawmaking function of the Secretariat, rather than the distribution of shareholder's stakes in the market managing company.

Second, even for the limited duties carried out by CAMMESA, the State has explicitly reserved for itself a veto right on all decisions adopted by the company.

Furthermore, as it is clear in the by-laws, all decisions require an assenting vote by the State representative in order to be effective. (Section: All resolutions by the Board shall be adopted by a majority of all votes of Directors in attendance, as long as that majority includes the vote of the Chairman (Secretary of Energy) or of the State-appointed Acting Director in his or her place. That means, not only that the State holds vetoing power, but also that its explicit approval of all decisions is mandatory.

In addition, should a disagreement occur in the case of key issues - such as the appointment of the Vice-chairman - the decision is left to the Federal State. Yet, there has been a movement towards an increased private participation – initially, this position was appointed by the State, but the rule was later amended so that now it is the Regular Shareholders Meeting that appoints it, as discussed above.

In short, governance in the Argentine electricity market is limited to the role of the Secretariat of Energy. In other words, and following the distinction drawn by BT&W between governance as an internal market mechanism and regulation as a set of rules external to the market, we may argue that there is no governance mechanism in the Argentine electricity market – rather, it is governed by the Secretariat of Energy.

This is, in our view, a serious limitation to the working of the market, and one of the greatest risks it faces in terms of long-term sustainability.

A basic analysis suggests that a mechanism such as the one described, whereby the State reserves the right to alter the functioning of a competitive market through low-rank administrative decrees (resolutions by a Secretary of State – in Argentina, a third-level office below that of Minister) involves a critical long-term risk for investors.

It is also worth pointing out that the lack of consultation mechanisms and of the necessary checks and balances of the interests - that are present in a multi-class governance system - cause the efforts of stakeholders to defend their rights to be channelled through attempts at influencing decisions by the law-making authority, rather than seeking the necessary consensus to achieve solutions benefiting the majority (if not all) of the market stakeholders.

Although there is neither an explicit justification nor any records of a discussion on the advantages and disadvantages of adopting diverse governance mechanisms for the Argentine electricity market, we may venture some tentative explanations on the choice made.

In the first place, the wording of CAMMESA's by-laws seems to suggest that, at the time of the transformation, there was a perceived need to establish a set of rules for the functioning of the market. And that those rules would be very constant and would need few alterations. Note that item (b) in the listing of CAMMESA's functions speaks of enforcing those rules that *the Secretariat of Energy shall enact from time to time* (our italics).

Should this be the case, defining guidelines to amend rules would not seem a relevant issue within the sector transformation process. Reality, on the other hand, shows that in almost ten years since the beginning of this process, an immeasurable quantity of changes, updates and expansions to the rules regulating the functioning of the Argentine electricity market has taken place.

Initial functioning rules were set by Resolution 91 of the Secretariat of Energy, enacted on April, 29, 1992. It established Procedures for Dispatch and Price Calculation Operations Programming (hereinafter the Procedures).

Since the enactment of that resolution, which was a few tenths of pages long, with a couple of Annexes including rules for the wholesale electricity market functioning, the Procedures have been amended by several resolutions of the Secretariat of Energy a total 131 times, as detailed in the following chart⁷.

⁷ All resolutions amending or updating procedures have been listed. Some of them are minor changes, such as the postponement of the implementation date for the commercial metering system. Others are extensive laws with multiple annexes, implementing fundamental alterations that change the whole of the procedures. The common ground lays in that, since they change the market rules, they have economic impacts over all of the agents.

Amendments in Procedures

Year	Number of Resolutions
1992	5
1993	21
1994	18
1995	12
1996	7
1997	13
1998	9
1999	11
2000	25
2001	10

From: the author's elaboration based on the Procedures, version XVI – CAMMESA.

As it may be seen in the chart, amendments range from a maximum 25 in the year 2000 to a minimum 7 in 1999 – i.e. between two amendments a month and one every two months. The chart also shows that the quantity of amendments does not indicate a declining trend, as it could be expected if we assume a first stage of formulation and adaptation of rules followed by stability in the medium term⁸.

If the lack of a governance mechanism responded to the belief that rules would be relatively stable and, therefore, that the method for their amendment was largely irrelevant, experience has shown us that this was not so. As suggested by the international experience and by the analysis of the Argentine case, the governance issue is central to the functioning of the electricity market in the medium and long term.

If we rule out stability of regulations as an argument for substituting the governance mechanism by a regulatory method where the political authority dictates the market rules, it may still be argued that the adopted mechanism shows some advantages that make it the most efficient and convenient mechanism.

Then, the argument would state that whether rules demand changing and adjusting is irrelevant, since a regulatory mechanism establishing the market rules (which we could call an “illustrated despot”) is the most efficient way to introduce the required changes.

When compared to alternative governance forms, we might say for the Single Class (or regulation rather than governance) model that it has the advantage of allowing a rapid and efficient adaptation to changes in the market functioning conditions.

As it does not require the building of consensus, this mechanism would permit a rapid and trouble-free implementation of all required modifications or of those deemed convenient by the political power, in its search for a more efficient and competitive market.

Once again, the analysis of the past experience with the Argentine system shows that, although the Secretariat of Energy has held the power to introduce such changes as it might deem necessary from the formal viewpoint, in practice this has not always been possible. Two attempts at major changes to the wholesale electricity market functioning – one in 1999 (resolution 545 of 1999) and another in 2001 (decree 804 of 2001) – failed to succeed due to a set of circumstances having to do with both sector and extra-sector politics.

Box 1 - Resolution 545 of 1999

This resolution was enacted on 10/21/1999 (and published on 11/22/1999). In time, it was amended by four resolutions (see below). It established a change in instrumental and management matters (processing of certain variables, terms, etc.) in the Procedures for Dispatch and Price Calculation Operation Programming (the “Procedures”). Yet, there were no fundamental alterations (such as the recognition of new stakeholders in the MEM, for instance). Changes were introduced to chapters 1, 2, 3, 4 and annexes 1, 2, 5, 9, 10, 13, 14, 15, 21, 22, 23, 26, 30, 36, 37, 38, 39, 40. The coming into force of the Resolution was originally set for May 1, 2000 (except for the regulation concerning the Day-ahead Spot Market and flexible demand, set for November 1, 2000). In order for the reader to have an idea of the changes to the Procedures that this resolution involved, we may point out that they represent a change in 80% of the chapters and 50% of the Annexes.

Resolutions amending resolution 545 are:

a) **Resolution 8/2000** (enacted on 01/21/2000 and published on 01/25/2000). It establishes the prorogation of the date of effective application of Resolution 545 to August 1, 2000, but for a few exceptions. The objective of this prorogation was justified on the need for comprehensive revision of Resolution 545 by the Secretariat of Energy.

b) **Resolution 153/2000** (enacted on 05/31/2000 and published on 06/15/2000). It establishes a new prorogation of Resolution 545 until May 1, 2001 (but for a few minor

⁸ In fact, if we drew a trend-over-time curve, it would show a positive slope, yet not a statistically relevant one.

exceptions). The “whereas clauses” contain the justification of such postponement: “upon completion of the revision procedure that gave rise to Resolution 8/2000, it was judged useful to postpone the effective coming into force of Resolution 545 and to gradually advance in the partial implementation of such alterations as are deemed most convenient in order to achieve simplification in the regulations and an improved performance of the MEM”.

c) **Resolution 136/2000** (enacted on 10/19/2000 and published on 10/26/2000). It provides for the derogation of Annex XXII of resolution 545.

d) **Resolution 128/2001** (enacted on 02/09/2001 and published on 02/14/2001). It establishes the derogation of Resolution 545, with the exception of Section 24 (derogating as from May 1, 2000, the resolution 404 of July 26, 1999 by the former SECRETARIAT OF ENERGY). According to its “whereas clauses”, given the need for a comprehensive adjustment that the activity requires in the present stage, the Secretariat is working on a new regulatory instrument “which shall be issued presently”.

Box 2

Decree 804 of 2001

a) Antecedents:

Decree 804 is legally founded on Act 25.414. In effect, on March 28, 2001, the Argentina National Congress passed Act 25.414, which provided for the delegation of the exercise of certain legislative competencies to the Executive Branch within the framework of the “public emergency” situation the country was going through at that point. According to that Act, only certain competencies were delegated, and none of the faculties listed referred explicitly to the capacity to legislate on the Electricity Regulatory Framework (provided for by Act 24.065).

b) The decree established the following:

- 1) “...the transmission expansion scheme not having as its main objective the improvement or maintenance of its reliability, which, as long as it shares market rules, shall be upon the free initiative of whomever carries it out, and at its own risk...” (Sec. 1).
- 2) “In the expansion of transmission networks through free initiative, no granting of concession contracts shall be required...” (Sec. 2).
- 3) “The following shall be recognized stakeholders within the Electricity Wholesale Market (MEM): Power Producers or Generators, Self-generators and Co-generators, Carriers, Distributors, Large Users and Traders” (Sec. 3).
- 4) “An actor shall be considered a trader if he or she sells or buys energy in the MEM on behalf of third parties, carrying out commercial activities according to the conditions established by the Ministry of Infrastructure and Housing...” (Sec. 4).
- 5) “The status of Electricity Wholesale Market (MEM) stakeholder shall be recognized to that holder (owner or mere holder) of the transmission installations capacity congestion rights...” (Sec. 6).

6) "... power generators shall receive compensation for energy sold, according to a procedure of timeslot dispatch that shall be determined on the basis of a free price bid submitted by each generator ... (Sec. 8).

c) *Its nullification*

Section 1 of National Act 25.468, passed on September 12, 2001 (and promulgated on October 12, 2001) provided for the derogation of Decree 801/2001.

Both these examples are thorough illustrations of the shortcomings of the present governance system in terms of introducing fundamental alterations to the functioning of the electricity market. In principle, the Single Class mechanism has the advantage of speed and decisiveness in the amendment of rules. In practice, however, the purely passive role of the rest of the agents that is assumed in this organizational model does not transpire. When their participation in the decision-making process is limited, other actors in the market tend to channel their opposition to certain actions, by acting as a pressure group outside the sector in order to hinder changes perceived as detrimental.

In addition, in many cases we find political interference originating in reasons outside the sector, which ends up influencing sector decisions as part of more general political conflicts or agreements. The experience of Decree 804 shows a clear case where the parliament, a prototypical political instance, vetoes the introduction of changes to market rules that have a high degree of technical complexity.

The governance system in the Argentine electricity market is based on direct regulation by the sector authority (Secretariat of Energy) and on a managing company that lacks any rule-making functions. Furthermore, its functioning is made contingent on the veto power and the explicit need of approval by the representative of the Federal State. This system seems to pose serious deficiencies and potentially high risks for the long-term development of the sector.

The analysis of the evolution in the market rules, from the time of its transformation does even show the presence of some critical setbacks for the introduction of fundamental modifications to the market functioning. In order to contribute to the study of the market and of governance mechanisms likely to help achieving those long-term objectives for the electricity sector, the following section shall analyze the international experience in electricity market governance.

The International Experience

The objective of this section is to analyse the international experience in relation to governance in the electricity sector, focusing particularly on the experience of three Anglo-Saxon countries, to wit: Australia, New Zealand and the United Kingdom.

In a previous work we have analysed the experience of some Latin American countries (Peru and Bolivia) and we concluded that the adopted mechanisms do not seem to follow –as in the case of Argentina- a long-run efficiency principle in the operation of the sector.

Therefore, comparing the functioning of the mechanism adopted in Argentina with the experience in Anglo-Saxon countries we can analyse the differences through various different approaches.

The analysis focuses on the governance mechanism of the different electric power markets as regards participating agencies, rules used to select members and voting mechanisms. Moreover, it emphasises the way in which the market-rules changing procedure is adopted as the key element of sector governance.

The chart that follows summarises the most important elements of the analysis. It provides a comparison of the main elements regarding the structure and governance mechanism of the markets under analysis. One of the conclusions drawn from this first analysis is that, basically –whether in a higher or lower degree- the three countries have adopted multi-class stakeholder governance mechanisms together with some elements of independent participation.

This seems to follow BT&W's recommendations by adopting a dual approach which includes multi-class elements (representing the interest of the various market actors) as well as independent actors (who reflect –to some extent- the “general interest”).

Comparative Chart

	Australia	New Zealand	England and Wales
Entity	National Electricity Market Management Company Ltd. (NEMMCO)	The first System Operator executes its contract with the EGEC.	The NGC plays the role of System Operator (it owns the transmission network). It is for-profit private institution.
Characteristics of the Institution	NEMMCO is a non-profit private company. NECA is a non-profit private company.	The System Operator is a for-profit private institution. The Industry EGB is a company distributing dividends among its members.	The BSC Panel is a collegiate body (not incorporated as a company) whose operating costs are covered by the BSCCo.
Date of creation	It was created in May of 1996.	Authorisation by the Commerce Commission is still pending.	It became effective together with the NETA, i.e. in March of 2001.
Number of Participants	?		
Governance Board	NECA's Board of Directors	Board of Directors of the Industry EGB	BSC Panel
Chairman	Appointed by NECA's members (Jurisdictions) to serve a term of three years.	The Chairman of the Board is elected by the Directors for a term of one year.	It serves a term of three years and is appointed by the Authority (Ofgem).
Board of Directors	Each Jurisdiction selects a Director and the Board may appoint up to two Directors (subject to the Jurisdictions' approval)	Directors must be "independent". Candidates are chosen from a public bidding. Then they are appointed by the vote of generators and purchasers, distributors and grid owners and consumer's representatives (each of these groups represents one-third of the votes and, within each group, members have special rights –see "Composition of the Board"-)	The Panel consists of a maximum of twelve people: a Director, five people chosen by the "Trading Parties" of the Code, two people appointed by the "National Electricity Consumers Council", one person representing the "National Grid Company", two people appointed by the Panel Chairman as "independent members" and an additional person if the Chairman believes that a certain sector should be represented in the Panel. The members of the Panel must not act as representatives of the people appointing them (they should act impartially).
Role of Committees	The Board of Directors can create special Committees to perform specific duties although it cannot delegate their right to vote on matters related to Code modification.	The Board can delegate some of its functions onto Committees (Part A, Schedule A2).	The Panel can create Committees and delegate some functions –but not all- onto them. The Panel is bound to create a "Trading Dispute Committee". Working Groups (having an active participation in the Code modification procedure) are also established by the Panel.
Voting Rules of the Board of Directors	They depend on the type of Code modification under discussion. If modifications do not alter NECA's functions or the "protected" provisions of the Code, three-fourths of the votes of the Directors present at the meeting are necessary for their authorization. If modifications alter NECA's functions, not only three-fourths of the votes are necessary but also the member's	If decisions cannot be taken unanimously, the affirmative vote of at least four of the Directors present is required to decide on an issue. In the event of a tie, the Chairman of the Board will exercise a double vote.	Quorum: 50% of the members of the Panel. Each member can cast one vote. Decisions are taken by simple majority.

	approval (by three-fourths of the votes). Modification of Code “protected” provisions requires the members’ unanimous approval.		
Voting restrains on vertically integrated companies	There are not vertically integrated companies.	There are not vertically integrated companies.	There are not vertically integrated companies.
Single-class Veto	No		No, at least nothing indicates a right of veto by a member of the Panel or in relation to any stage in the Code modification procedure.
Different voting rules depending on topic of discussion	Yes, see above.	Yes. Different majorities are required to approve a change depending on the issue under discussion (one of the main characteristics of Rulebook –see chart).	No
Voting rules and vote allocation modification mechanism	Modification of vote allocation within NECA can be decided by the Jurisdictions (it implies changing NECA Member’s Agreement). As regards Code modification, a unanimous vote of NECA’s members is necessary since sections 8.3.2 to 8.5 are the so-called “protected” Code provisions. And, eventually, if ACCC’s decision-making system is to be modified, this would imply a modification of the “Trade Practices Act 1974”.	In order to modify voting rules and allocation of votes, it is necessary to follow the rules set out to appoint Directors. Accordingly, generators and purchasers are allocated one-third of the votes, another third to distributors and grid owners and the other third to the consumer’s representatives. 75% of the votes are necessary to approve a change	
Appeals	There are no appeals if NECA has decided that a certain modification will not be authorised (although against CCP’s recommendation) on the grounds that it conflicts with NEM objectives. If NECA has decided to carry out the modification, Participants can appeal the decision of the ACCC before court of law.	Only members with a right to vote on a specific matter can appeal the decision of the Rulings Panel with the 25% of the votes.	Need to find out if any party can veto the decisions of the Authority –which is the body approving modifications-. -

The Australian Case

The Australian National Electricity Market (NEM) includes the spot market for electricity supply and purchase. It comprises five Jurisdictions (States and Territories) in the east and south-east of Australia (New South Wales, Victoria, the Australian Capital Territory, South Australia, Queensland –and the Tasmanian Territory to be incorporated shortly).

The NEM was created by the “National Electricity Law” (NEL), which was passed and approved by each of the Jurisdictions. The “Code” contains some of the rules for its enforcement.

The institutions governing the NEM

The main institutions responsible for the Australian market governance are: the National Electricity Market Management Company (NEMMCO) and the National Electricity Code Administrator (NECA). These institutions have been created by the Jurisdictions as companies incorporated under the Corporations Law and limited by guarantee. They are responsible for the NEM meeting the objectives and duties set out in the NEL and its rules of enforcement (the Code).

On the other hand, the Australian Competition and Consumer Commission (ACCC), the Jurisdictional Regulators and the National Electricity Tribunal (NET) also exercise governance functions related to the regulation of the sector and, among other duties, they control and supervise NEMMCO and NECA’s acts.

Powers and Objectives of NEMMCO

Participating jurisdictions have established NEMMCO to manage the operation of the market and the power system. NEMMCO is a company incorporated under the Corporations Law and limited by guarantee. It has no share capital but the members guarantee to cover any indebtedness on liquidation up to a specified amount.

The members of NEMMCO are the participating jurisdictions. Each is able to appoint a director unless disapproved by the other members. Directors are chosen for their expertise in relevant areas and not as representatives of a jurisdiction, a participant or a class of participant. Two additional directors can be appointed by the board.

The objectives, powers, and responsibilities of NEMMCO are defined in the Code. In broad terms, NEMMCO currently has responsibilities in relation to *Market operation, System operation, Metering and Registration, Promotion of Market Development and Power System Planning*.

The functioning of the company can be analysed through two different approaches: the company operation determined by external corporate governance requirements and the one resulting from the internal corporate governance requirements.

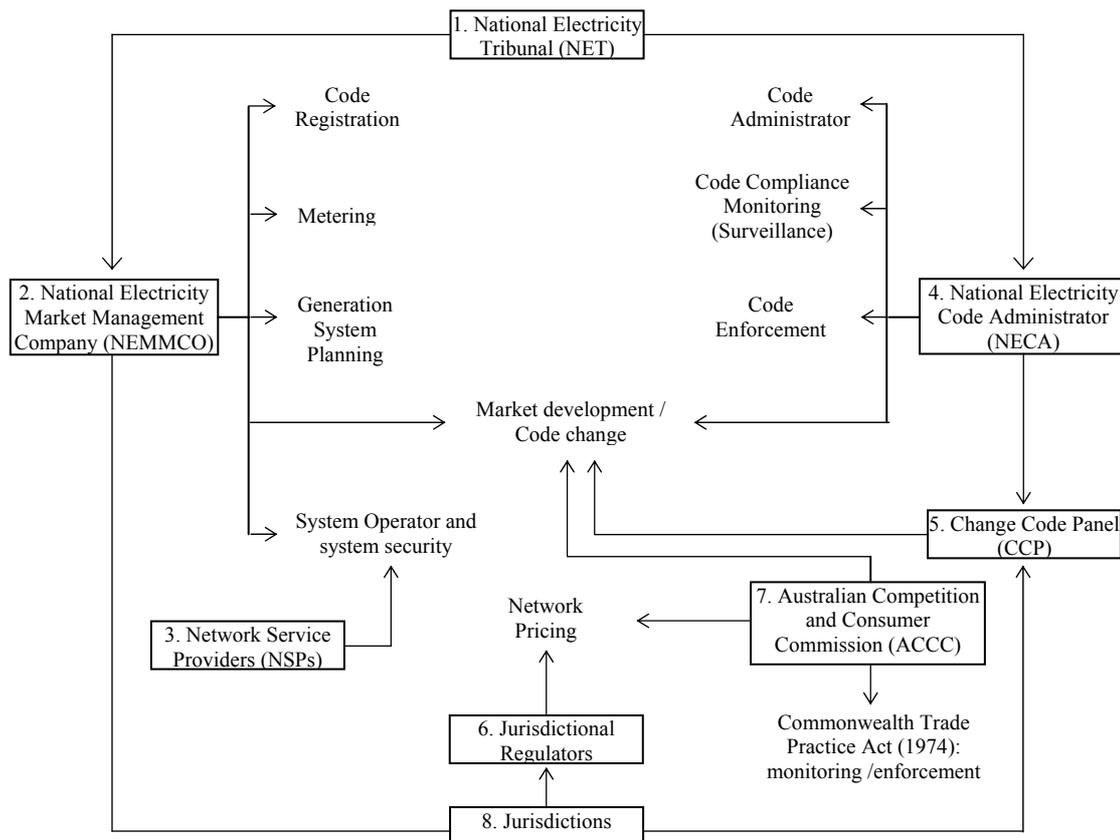
The external corporate governance requirements are imposed by the NEL and the Code. These requirements impose limitations on the functioning of NEMMCO. The law establishes the so-called *Reviewable decisions* which empower the National Electricity Tribunal (NET) to review some of the decisions made by NEMMCO upon request of an interested party. On the other hand, the law also establishes the *Code enforcement procedures*. When NEMMCO violates the Code, NECA can use different procedures to re-establish the compliance with the provisions of the Code before the NET, including the application of penalties.

Also, pursuant to the Code, NEMCO is liable for obligations related to *Consultation Procedures; Annual Performance Indicators; Consideration of Code Stakeholders' interest; Dispute resolution, reports and control*. The Code specifies some aspects of NEMMCO's operation that require NECA's control and supervision.

The *internal corporate governance requirements* are the obligations arising out of the Members' Agreement as well as the Memorandum and Articles of Association. Australian Corporations Law also influences on this.

These requirements refer to NEMMCO's decision-making system. The main aspects of said system include *Participation* (only the States, the territories and the Australian Commonwealth are NEMMCO's eligible members), *Appointment of the Directors: chairman and voting rules, and the integration of the Participant Advisory Committee (PAC)*. The PAC assists the Board and provides information on the operation of the National Electricity Market for the purpose of helping NEMMCO meet the objectives set out in the Code. It consists of 15 members who are selected out of a list of candidates –classified by sectors- including any Participant of the Code or any organisation wishing to integrate the Committee. At least one member of each sector is to be elected but the Committee cannot include more than three members from the same sector. The members of the Committee hold office for two years and their performance is subject to the Board's surveillance. The Committee can remove its own members by two-thirds of the votes.

Governance Structure of the Electricity System⁹



1. **NET:** has power to review "reviewable decisions" by NEMMCO and NECA. The NET can also issue orders and civil penalties against NEMMCO for Code breach.
2. **NEMMCO:** has primary responsibility for each of the functions indicated except for market development/Code change (for which NECA has the primary role).
3. **NSPs:** have system security responsibilities.
4. **NECA:** has primary responsibility for each of the functions indicated.
5. **CCP:** reports to NECA and is responsible for the progress of the Code change process.
6. **Jurisdictional Regulators:** have network pricing and related responsibilities (they have transmission pricing on a transitional basis, pending ACCC involvement).
7. **ACCC:** authorises and approves Code changes for the purposes of the TPA. It also regulates TPA compliance by market participants and has responsibilities for transmission network pricing (phasing in over a transitional period).
8. **Jurisdictions** (New South Wales, the Australian Capital Territory, Victoria, South Australia): own NEMMCO and NECA. They are ultimately responsible for their respective regulatory bodies.

⁹ Source: "National Electricity Market: Governance and Liability Review"; Middletons Moore & Bevins, KPMG and Sedgwick Limited; 1999.

Functions and objectives of NECA

The objectives and functions of NECA are also set out in the Code. In broad terms, NECA has the following responsibilities:

- a) *monitoring*: to monitor and report on Code compliance and Code adequacy;
- b) *enforcement*: to enforce the Code, in accordance with the Code and the NEL;
- c) *Code administration*: this includes the following administrative functions:
 - a. establishing and administering dispute resolution procedures;
 - b. administering and managing Code change;
 - c. information collection and dissemination;
 - d. undertaking various reviews required under the Code.

Under the Code, NECA is required to establish various panels to assist it in the performance of some of its administrative functions and reviews.

As well as NEMMCO, NECA is subject to external and internal rules. Among the first type, there are the reviewable rules –the procedure depends on whether the Code identifies certain issues as “reviewable” or not-. On the other hand, the Code specifies certain requirements also set out for NEMMCO: *Code consultation procedures, annual return indicators and dispute resolution procedures*.

As regards internal governance rules, they include: *participation, Board of Directors election and duration and decision-making procedures*.

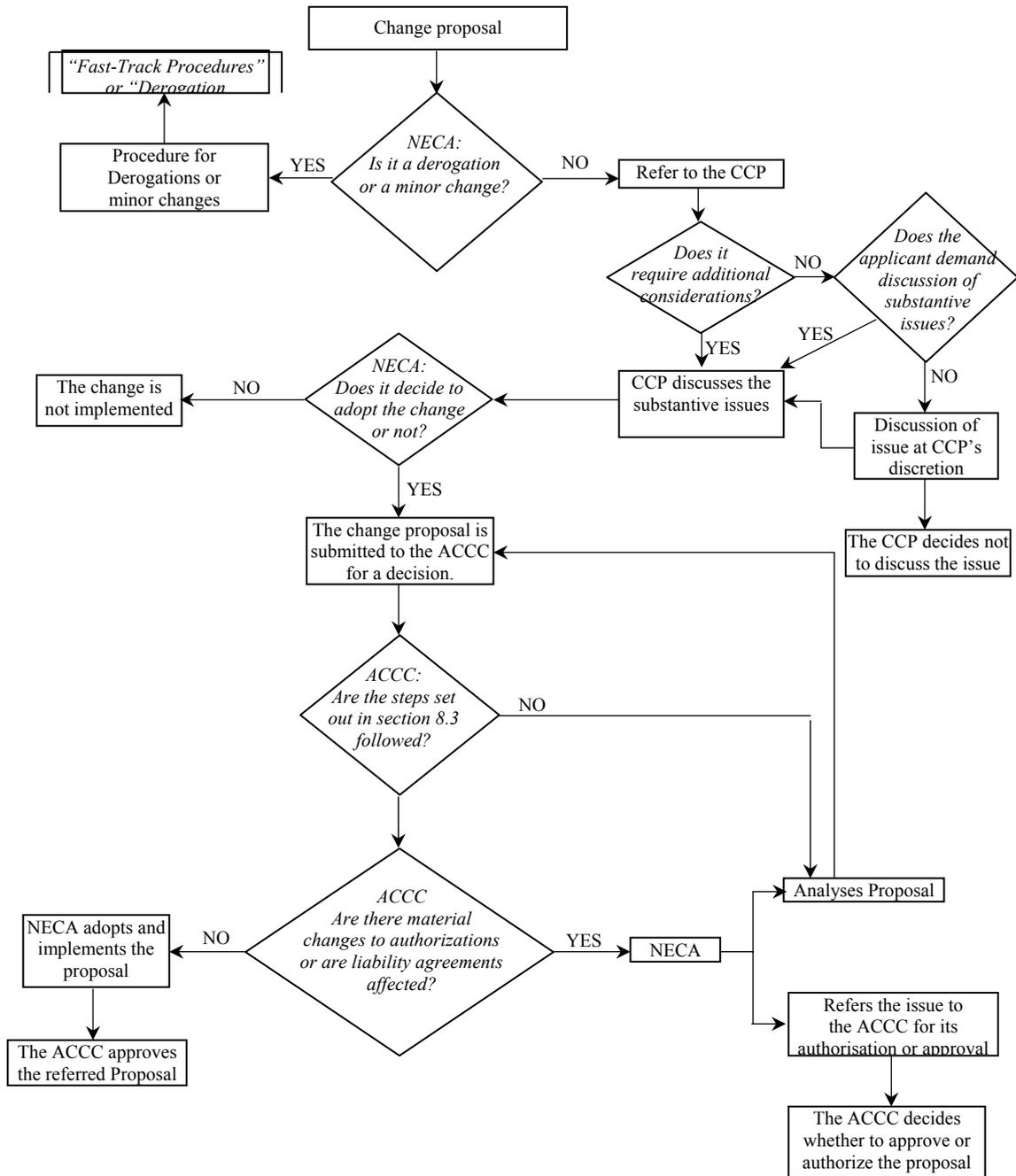
The election of the company’s Board is carried out by the members of NECA themselves in a general meeting where each of them suggests a Director. The number of directors can vary between three and nine, including the Chairman. The directors to be appointed need to be elected by a majority of members. At least three Directors (including the Chairman) should be independent from the electric power provision sector. The Chairman is chosen by the members in a general meeting. The Directors and the Chairman will hold office for three years and can be removed or changed in number by the members’ agreement in a general meeting.

The Board is in charge of running the company with the aim of meeting NECA’s objectives. The general rule shows that the Board has the final decision on every aspect related to NECA, except for those issues specifically identified by the “Member’s Agreement” as needing the members’ approval in a general meeting¹⁰. The quorum required for each voting is decided by the Board itself. Each Director casts one vote and the issues are decided by the majority of Directors attending the meeting (except for those requiring a special majority, such as Code changes).

The issues related to Code changes need to be decided by a special majority, to wit: three-thirds of the Directors attending the meeting. Moreover, the amendment of the so-called “protected” provisions of the Code (following the NEL) requires the unanimous vote of all members.

¹⁰ Such as the Code amendment which implies a change of NECA’s functions (for these decisions not only the Board’s special majority is needed but also a special majority of three-fourths for the members’ approval.

Code Change Process



The Code Change Panel (CCP)

NECA is responsible for the organization of the Code Change Panel (CCP) which is composed of three people including:

- 1) the chairman of the CCP, represented by NECA's CEO; and
- 2) two people with experience in issues related to the Code and knowledge of the Code's functioning. These people should also be "independent" in NECA's opinion (i.e., they are not representing the market stakeholders neither NEMMCO).

Moreover, NECA provides the CCP with a Secretary to deal with Code changes. The members of the CCP hold office for a maximum of three years.

Code Changes

The institutions in charge of carrying out any amendments to the Code are NECA, the Code Change Panel and the ACCC (eventually, the Jurisdictions and the Reliability Panel may intervene).

The source of the Code change can come from diverse institutions. Different procedures are applied to Code changes depending on the source asking for the review. In this sense, the Code establishes that changes will be allowed in the following cases:

1. The CCP has recommended the change.
2. The change consists in a derogation or an extension of a derogation.
3. The Reliability has recommended the change.
4. NECA considers that the change is minor, procedural or for the purpose of amending a clear mistake ("fast-track procedures").

The New Zealand case

The main characteristic of the organisation being analysed as replacement of the present governance mechanism in New Zealand is that the industry agents themselves are proposing the set of rules to be enforced (hereinafter, the Proposal).

The incentive of the agents to come to an agreement and, secondly, to determine a “reasonable” proposal is driven by the threat that otherwise, it would be the Ministry of Energy (through a statutory governance mechanism) the institution in charge of deciding the new regulatory system.

The reform process was launched with the release of the Terms of Reference for the Inquiry established by the Ministry of Energy. The overall objective of this inquiry was established in its report and aimed at “ensuring the delivery of energy services to all classes of consumers in an efficient, fair, reliable and sustainable manner from the environment point of view.” This was known as the “Leading Principle” of the process.

A Panel was entrusted with the duty of carrying out said Inquiry. Its main responsibility was to invite agents to give their opinions (in writing or public hearings) about the reform, particularly on the previously mentioned aspects. Then, on the basis of such documents and public hearings, the Panel released the “Inquiry Report” which suggested certain changes to the most important sectors of the industry. As regards governance structure, the report proposed a substantial change based on a unique mandatory participation market ruled by a panel with a majority of independent members.

The government accepted most of the advice included in that Report and published a “Government Policy Statement” (GPS) where many of the ideas developed in the “Inquiry Report” were adopted. The GPS reinforced the following aspects: to encourage the development of an organisation based on self-regulation and, to develop a unique market structure governed by an “Electricity Governance Board” (EGB). The functions and duties of this EGB include: i) control and supervision of the fulfilment of the objectives set out in the GPS –denominated “Leading Principle” in the Inquiry- and ii) control and supervision of the development of rules related to the electricity wholesale market, transmission, distribution and governance structure (whether in connection to the rule making process or their enforcement –including dispute resolution mechanisms and an independent surveillance body).

This EGB is made up of not less than five and not more than nine members. Its principal function is to watch the development of rules in accordance with the Leading Principle as well as their enforcement. The EGB is to be composed of a majority of independent members whose appointments need to be previously approved by the Ministry of Energy.

Following the provisions in the GPS, four acts were passed, namely: the “Electricity Amendment Act 2001” (EAA), the “Commerce Amendment Act (No2) 2001”, the “Electricity Industry Reform Amendment Act 2001”, and the “Ministry of Energy (Abolition) Amendment Act 2001.

The industry’s response: the “Electricity Governance Establishment Project”

The “Electricity Governance Establishment Project” (EGEP) was developed in 2000. The first step in establishing the project to achieve the desired outcomes was the establishment of the Electricity Governance Establishment Committee (EGEC), an

oversight body comprising representatives of each of the industry areas that will be covered by the EGB. The EGEN members were chosen from the already existing governance structures and from other areas. The Government stressed the need for end-use consumers to be represented in the EGB and therefore, they were included in the EGEN¹¹. The role of the Committee is to achieve a self-regulatory industry governance model based on a multilateral contract and act as the project oversight committee until the new Electricity Governance Board is able to assume that role.

In December of 2001, the EGEN submitted its governance proposal to the Commerce Commission for approval. The most important part of the Proposal consists of the review and summary of the different agreements in force into a single agreement included in the so-called “Rulebook”.

From the legal point of view, the industry’s proposal represents a multilateral contract executed by its agents where they agree on the creation of an organisation structure.

A core feature is the “federal” structure where votes are allocated “on a chapter-by-chapter basis”. Apart from the governance chapter, voting rights in each chapter are allocated to those parties engaged in the underlying transaction governed by the relevant part of the contract. For example, the only parties with votes in the wholesale trading chapter are the parties who buy and sell electricity over the national grid using the rules.

This New Agreement of the industry is backed by a group of institutions responsible for the application of the self-governance mechanism and its proper functioning. The most important institution from this group is the Industry EGB. Its prime duty is to oversee the operation and evolution of the rules contained in the Rulebook. Although the Industry EGB is the primary governing body, it is seconded by other institutions such as the “Rulings Panel” (which determines disputes) and the “Working Groups” (which participate in the consideration of rule change proposals).

Industry EGB

“Industry EGB” is charged with carrying out the official submission of the contract under analysis. Actually, the company is denominated “Electricity Governance Board Limited” and it is owned by the members of the Rulebook.

The EGB plays a material role in the contract framework and its duties are, among others, to oversee the general operation of the rules, including compliance and enforcement; facilitate and oversee the rule change process and be responsible for the overall integrity and consistency of the rules; oversee and facilitate the appointment of service providers, and monitor the performance of service providers and all other parties contracted by the EGB to perform functions under the rules.

The Board of Directors of Industry EGB is comprised of seven members appointed by the members of the Rulebook for a three-year period. The Rulebook sets out a special voting mechanism to appoint directors, namely: one-third of the votes are allocated to generators and purchasers, another third to distributors and grid owners and the remaining third to approved consumer representatives.

¹¹ The EGEN members represent the following sectors: two represent consumers (they integrate the “Consumer Coalition on Energy”), two are from the “Grid Security Committee”, two belong to the “MARIA Governance Board”, other two come from the “SNEM Rules committee”, one represents the “Network companies” and another, “Transpower”.

Directors' decisions require a 50% quorum. Generally, Directors should try to make decisions unanimously. However, if they cannot agree on a certain issue, decisions require a minimum of four votes of the Directors attending the meeting. If a deadlock arises, the Chairman's vote will decide.

Rulings Panel

The Board is in charge of appointing its members. The Panel comprises five members who hold office for a period of five years. It is important that this body be integrated by independent people from different activities. The financing of this Panel is entrusted to the Board of Directors.

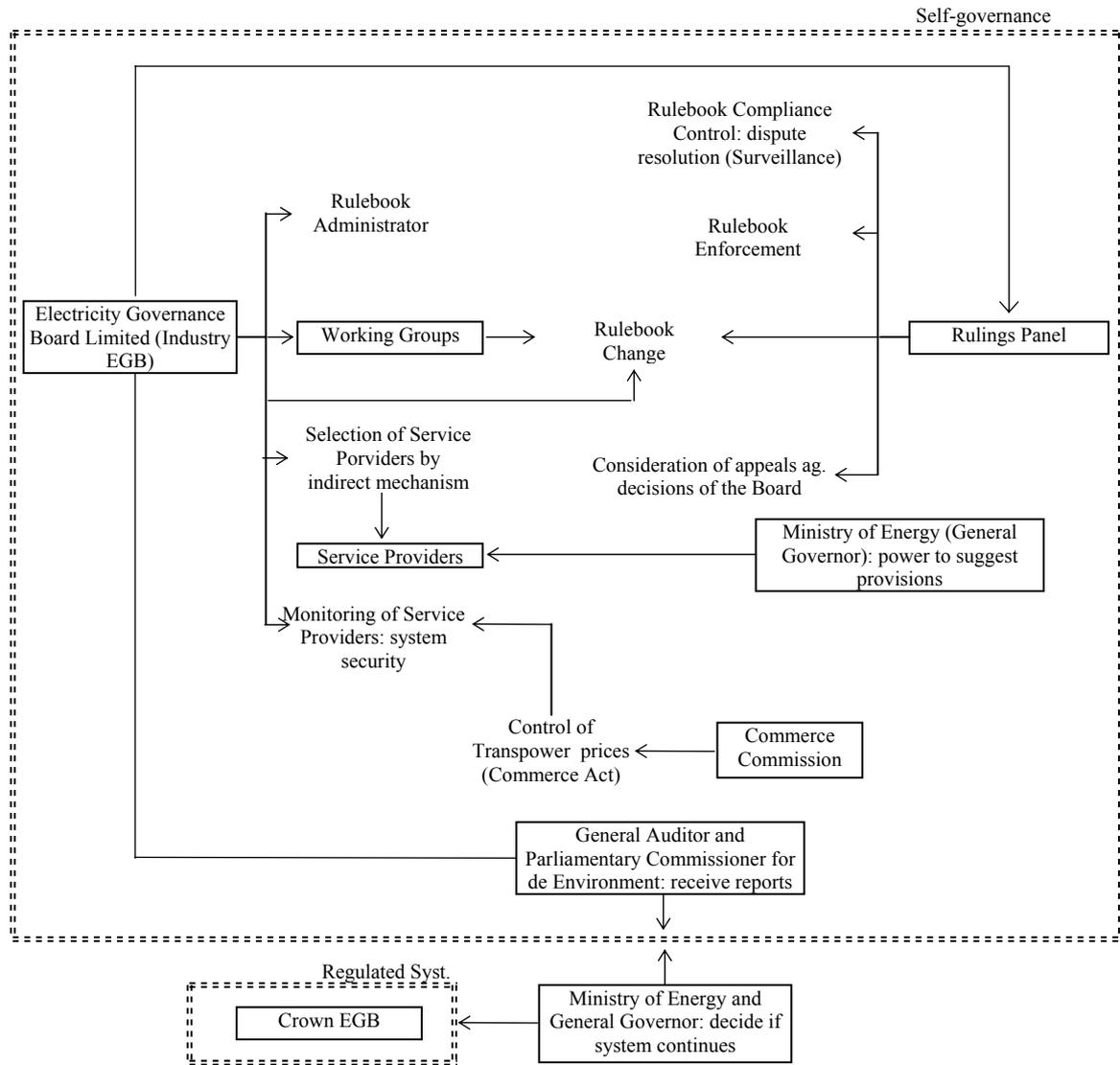
The Panel is charged with the following powers and duties (among others): to conduct the Hearings on the issues submitted to its consideration, to propose rule changes, to review decisions of the Board rejecting a rule change proposal as trivial or vexatious; to consider appeals against any rule change; to consider applications for review of certain decisions made by the System Operator; and to suspend or terminate any right of a participant because of misconduct.

The decisions of the Rulings Panel are binding on every party taking an issue under its consideration. Any participant, though, can file an appeal before a court of law for lack of jurisdiction.

Working Groups

Most of the aspects related to these groups (formation, election of members, financing, performance surveillance, etc) are discretionary to the Board of Directors. Their function will be further analysed in this paper (see "rule modification procedure") but basically their main duty consists in considering, analysing and report on a proposal to modify any rule from the Rulebook.

Governance structure



Explanatory Notes:

Industry EGB: appoints the members of the Rulings Panel and the Working Groups.

Ministry of Energy: can suggest rules which are not related to the wholesale market nor the transmission system. Also, he should decide on the system continuation (he can propose the termination of the self-governance system and the system ruled by Crown EGB will govern).

Rulings Panel: can submit changes to the Rulebook. It can review the decisions of the Board on Proposals rejected as trivial or vexatious. Also, it decides the appeals against such decisions of the Board and, upon a party's request, may construe rules.

Commerce Commission: exercises direct control over the services provided by "large network companies" related to electricity distribution and transmission when those companies fail to meet the objectives set out by the Committee.

Working Groups: are created by the BSCCo for the discussion and study of change proposals.

Service Providers: 1) System Operator; 2) Pricing Manager, 3) Reconciliation Manager, 4) Registrator, 5) Clearing Manager and 6) Market Administrator.

Rule Change Process

The Rulebook provides the “Guiding Principles” and the Industry EGB –in its function as primary governance body- is to oversee the compliance with these principles. Consequently, the EGB is charged with the important duty of coordinating Rulebook changes and ensuring, among other things, that the new rules are consistent with the guiding principles.

Each chapter of the Rulebook determines specific majorities for rule changes. The change mechanism, though, is the same throughout all chapters. This mechanism can be divided into three stages: Introduction of the issue (legal standing); Discussion of the issue by Working Group and Discussion of the issue by Board of Directors. A fourth stage would be the appeal against a decision of the Board.

Any person can submit a rule change proposal to the Board of Directors.

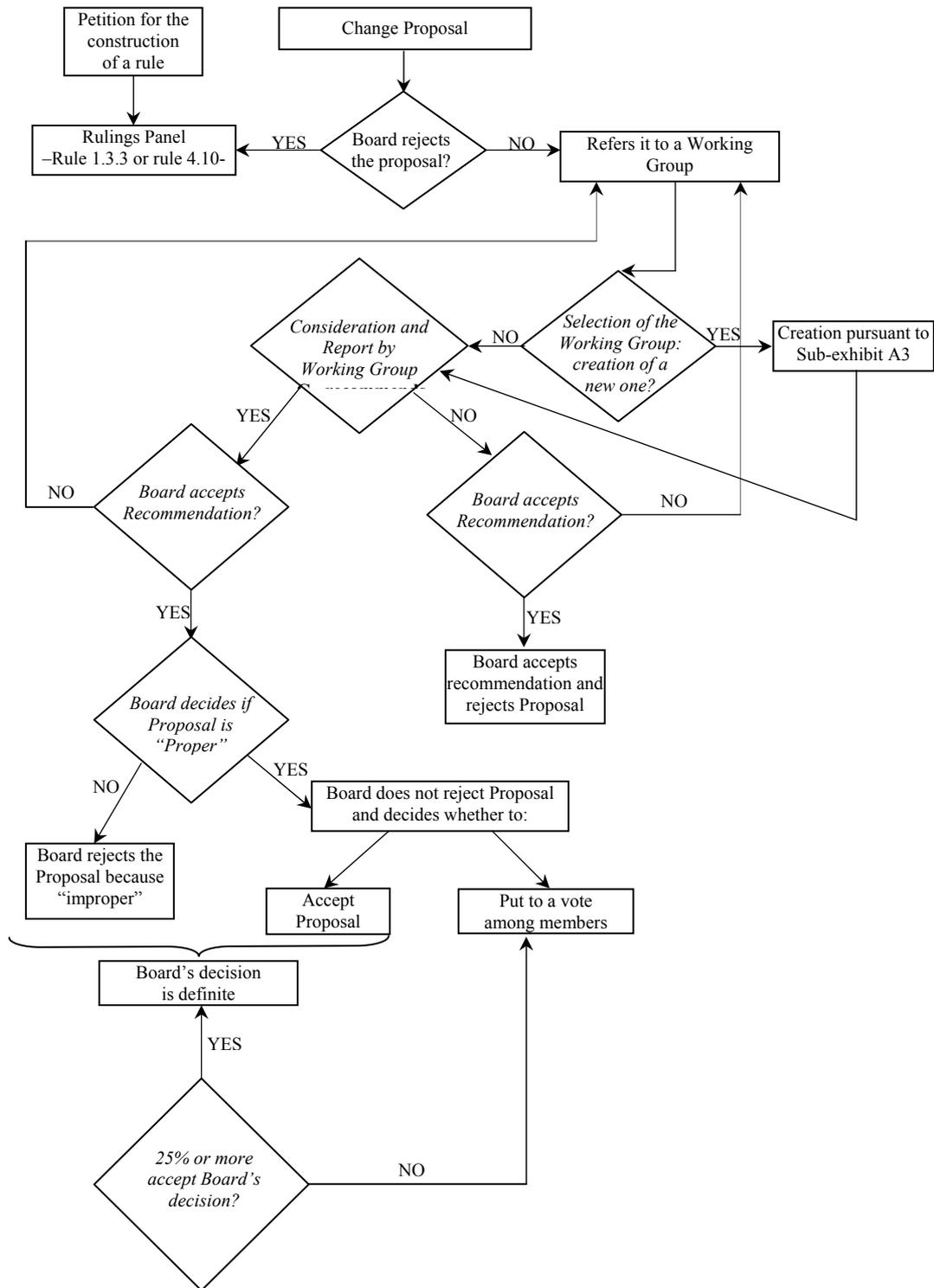
Consideration by Working Group: if the Board decides not to reject the Proposal, it will refer it to a specific Work Group. The Working Group analyses the proposal and provides the Board with a Report including, among other things, a recommendation on whether to accept or not the rule change (i.e., accept the Proposal). To make this decision, the Group bases on the considerations submitted by the Participants (all participants are to be notified and asked to give their opinion about the Proposal), Service Providers (how the Proposal may affect their remuneration), the System Operator (how the Proposal may affect its ability to meet quality and security standards) and Transpower (grid owner).

Furthermore, the Working Group controls and reports on whether the Proposal is consistent with the rest of the rules in the Rulebook; if it affects the rights or obligations of any member who would not be entitled to vote on the proposal, if there are additional issues relating to implementation and, whether the proposal is controversial or materially financially disadvantage for any member.

Consideration by the Board of Directors: on the basis of the working group’s report, the Board may accept or not its recommendation. Moreover, the Board decides if it agrees with the procedural and substantive matters considered by the Working Group to reach a decision. In this stage, all participants can be asked to cast a vote.

Rule Construction: Every person may require that the Rulings Panel decide on the construction or enforcement of a certain rule. The decisions of the Panel will be published and will be binding on all participants.

Rulebook Change Process



Governance in the United Kingdom

Introduction: changing from the Electricity Pool to NETA

Since 1997, the electricity markets of England and Wales have been undergoing a very important restructuring which led to the adoption of the “New Electricity Trade Agreement” (NETA) on March 27, 2001 thus, leaving aside the “Electricity Pool”– established by the “Pooling and Settlement Agreement”- which started operating on April 1st, 1990.

Before NETA was implemented, it was wide known that the Pool’s governance was inefficient. Actually, during the 11-year period of existence of the Pool, most of the necessary changes were hindered by its governance structure. Consequently, it was decided that the new order design should include a governance structure flexible enough to allow changes of the Pool’s functioning rules.

The guidelines structuring the “Balancing Mechanism” and the “Settlement Process” are incorporated in the “Balancing and Settlement Code”. Said Code (hereinafter the “Code”) comprises –among other things- NETA’s governance system: creation and regulation of the “BSC Panel” –main governance body-, creation (and regulation) of the company responsible for the administration of the Code –the “Balancing and Settlement Company” – BSCCo-, the Code modification procedure, the dispute resolution procedure, etc. It further sets out settlement procedures, a balancing mechanism, classification and registration of metering systems, etc. These rules are intended to arise from the conclusions drawn throughout NETA’s functioning experience.

NETA’s governance structure

The main institutions associated with NETA’s governance structure that can be identified in the “Balancing and Settlement Code” are: the “Balancing and Settlement Panel” –BSC Panel-, the “Balancing and Settlement Company” –BSCCo-, “Energywatch”¹², the “Trading Dispute Committee”, the “National Grid Company” and Ofgem. We shall now focus on the corporate governance characteristics of the institutions playing a key role in Code modification and dispute resolution processes, namely: BSCCo (also known as Elexon), the BSC Panel and the “Trading Dispute Committee”.

Elexon: BSC Company

Elexon is also known as the “Balancing and Settlement Code Company”. Its main function is to provide and facilitate the resources and services necessary for the proper, efficient and effective enforcement of the Code (including the provision of resources to the Panel and its Committees as well as services set out in the “BSC Service Descriptions”).

Elexon’s Board of Directors is composed of five directors. The Chairman of the Board is also the Panel Chairman. Two of the directors are Panel members representing

¹² “Energywatch” is the institution representing British consumers. Since November 1st, 2000, it has replaced the “Gas Consumers Council” and the “Electricity Consumers Committees”.

the industry (they are appointed by the Panel) and the other two are appointed by the Panel Chairman (following the Panel recommendation). The former hold office for the same period as they are members of the Panel. The latter are appointed for a maximum of two years.

The BSC Panel

The BSC Panel is charged with the duty of ensuring that the BSC is given effect pursuant to its provisions and in such manner as will facilitate the achievement of the following objectives: compliance with NGC's obligations under the Licence; efficient, economic and co-ordinated operation of the Transmission System by NGC; promotion of efficient competition in the generation and supply of electricity; and development of such competition in the sale and purchase of electricity.

Furthermore, these liabilities include that the BSC is given effect without undue discrimination between members or classes of members and that the BSC is applied efficiently and economically.

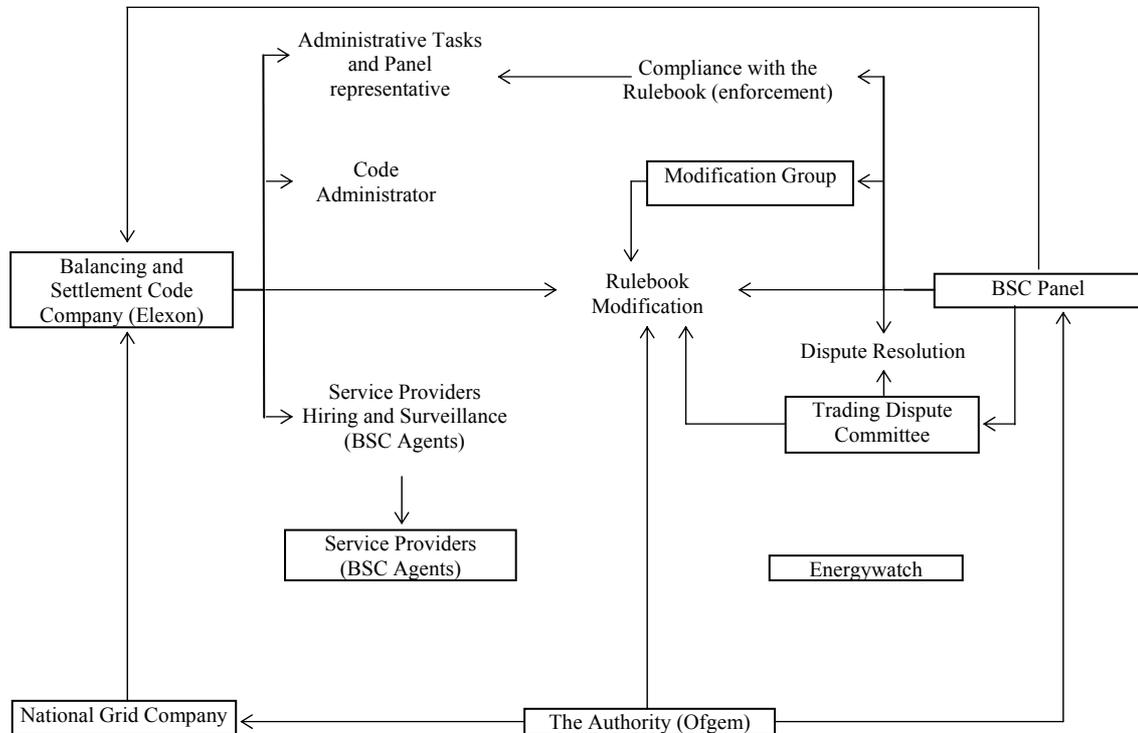
The Panel comprises a Chairman, not more than five members appointed by the "Trading Parties", not more than two members appointed by the "National Electricity Consumers Council" (i.e., "Energywatch"), one person appointed by the NGC and a maximum of two people chosen by the Panel Chairman to act as independent members. The Chairman may choose to appoint one more member to represent other interests (provided he believes that those interests need to be represented in the Panel). This makes an aggregate number of twelve members. Elexon appoints the Panel Secretary.

In general terms, the members of the Panel are appointed for a period of two years. The Code establishes that Panel members must act impartially and that they shall not represent the interests of the people who appointed them.

The Panel may constitute "Panel Committees" to perform some of its functions. Actually, it has delegated some of its duties to the following committees: ISG (Imbalance Settlement Group); SVG (Supplier Volume Allocation Group); PAB (Performance Assurance Board); and TDC (Trading Disputes Committee)

At any meeting of the Panel, decisions on a matter shall be made by 50% of members present. The Code provides for the voting mechanism necessary to make resolutions. Each Panel member shall cast one vote and decisions are taken by simple majority. The Panel Chairman shall cast a vote as a Panel Member and shall also have a casting vote on any matter where votes are otherwise cast equally in favour or against a certain matter.

Governance Structure



Explanatory Notes

BSCCo: is the Code Administrator (responsible for its updating, amendments, etc.). It is charged with administrative tasks aimed at facilitating the Panel and Modification Groups' work. It provides information to the Code members. Elexon is responsible for engaging the services of "BSC Agents", namely: the "Settlement Administrator Agent" (SAA), the "Funds Administrator Agent" (FAA), the "Balancing Mechanism Reporting Agent" (BMRA), the "Energy Contract Volume Aggregation Agent" (ECVAA), the "Central Data Collection Agent" (CDCA), the "Technical Assurance Agent" (TAA), the "Central Registration Agent" (CRA), the "Supplier Volume Allocation Agent" (SVAA), the "Teleswitch Agent", the "BSC Auditor", the "Profile Administrator" and the "Certification Agent". It acts as the Panel representative in relation to the enforcement of sanctions determined by said Panel and it also facilitates information to the Authority. The composition of the Board of Directors is determined by the composition of the BSC Panel (whose members are chosen by the Code members, the Ofgem and the consumers–Energywatch-). It needs to transact all the necessary businesses for the purpose of introducing any party wishing to participate in the Code.

The Panel: enjoys certain powers in common with Elexon regarding the contract of BSC Agents. It is in charge of imposing sanctions on those breaching the provisions of the Code. It chooses the members of the Modification Group and participates in the Code modification procedure. The Panel is entitled to remove any of the parties to the Code (in some cases, it requires the approval of the Authority)

National Grid Company (NGC): it owns BSCCo shares of stock and consequently it enjoys certain powers (in general it acts as the Panel's representative). The NGC is bound to transfer those shares upon the Authority's request.

Ofgem (Gas and Electrical Markets Authority): participates in the Code modification procedure. Therefore, it influences the decisions of the Panel (not only through the election of its Chairman but also by controlling its decisions).

Trading Dispute Committee (TDC): is chosen by the BSC Panel. It can suggest recommendations to the Code. It is responsible for the resolution of disputes.

“Balancing and Settlement Code” (BSC) modification procedure

The BSC can only be modified by the NGC and solely the Authority can authorize said reform. Amendments should always be consistent with the BSC Objectives under the Licence.

The Licence also establishes fundamental guidelines about the Code Modification Procedure¹³. The Code sets out the rules governing the Modification Procedure. We will now focus on the main aspects of this Procedure.

The BSC Panel is in charge of operating and instrumenting the Code Modification Procedure in accordance with its rules. In general, changes to the “Core Industry Documents” –and in order to implement them properly- require that some amendments be made to the BSC. Therefore, the Panel is responsible for the creation of organizations where all parties involved in those documents (technically denominated “Core Industry Document Owners”) can work jointly to identify, coordinate and carry out the necessary changes to the documents and, consequently, to the BSC.

The Panel is to be assisted by a secretary (denominated *Modifications Secretary*) appointed by the BSCCo. This Secretary is liable for the administration of the Modification Procedure.

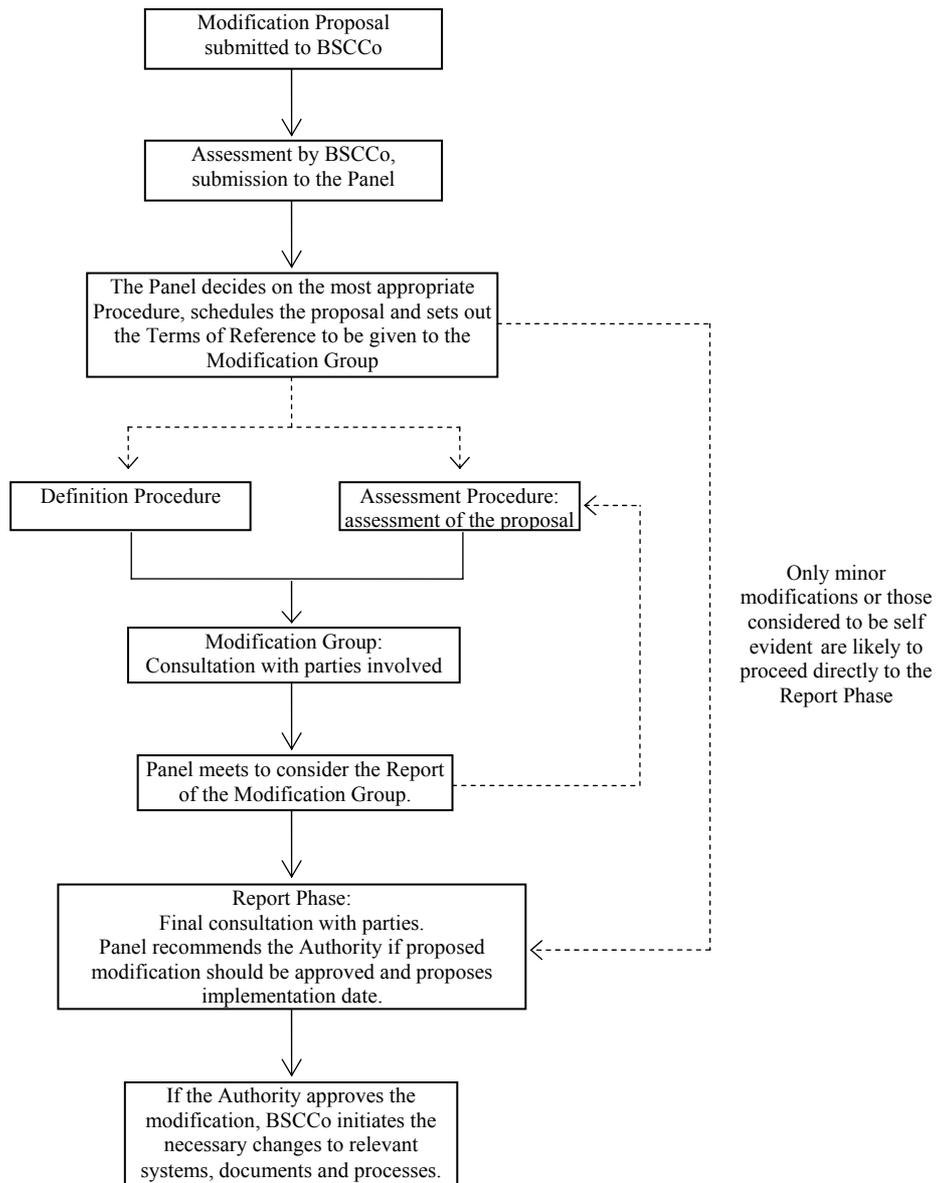
Under certain circumstances, the regulator –i.e., Ofgem- is empowered to entrust the Transmission Company with the administration and management of the Modification Procedure or Approval Procedure. In this case, the liabilities on the Panel, the Modifications Secretary and BSCCo are suspended and they become representatives of the Transmission Company as regards all matters related to the Modification Procedure. The circumstances leading the Authority to make such a decision are set out in the Code and include the following:

- i) The BSCCo and/or the Panel fail to comply with the Code provisions (or they are likely to do so) governing the Modification Procedure and/or the implementation of Authorised Modifications.
- ii) the Authority has given notice to the Modifications Secretary of the non-compliance of BSCCo or the Panel with said Code provisions;
- iii) The Panel and/or BSCCo do not change their attitude or action.

The Modifications Procedure comprises four basic stages or sub-procedures, namely: *Proposal Submission and Consideration Phase; Definition Procedure; Assessment Procedure and Report Phase.*

¹³ For example, in relation to who can propose a modification, the consultation process among interested parties, the analysis of the Proposals’ consistency with the Applicable Code Objectives, the preparation of the Modification Report and its submission to the Authority.

Code Modification Procedure



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