

Study on Assessing Capacity Building Requirements for Regulatory Staff

Forum of Indian Regulators (FoIR)

Final Report



May 2012

Table of Contents

1	ABOUT THIS DOCUMENT.....	4
1.1	Background	4
1.2	Scope of Work.....	4
2	DELOITTE’S APPROACH TO THIS STUDY	7
3	ORGANISATION STRUCTURE	9
3.1	Deloitte’s Approach	9
3.2	‘As-Is’ Understanding & Observations	9
3.3	Inputs from similar Organisations & Learnings	18
3.4	Our Recommendations	31
4	COMPENSATION	34
4.1	Deloitte’s Approach	34
4.2	‘As – Is’ Understanding & Observations	35
4.3	Inputs from similar Organisations & Learnings	38
4.4	Recommendations	41
5	RECRUITMENTS, PROMOTIONS AND CAREER GROWTH	46
5.1	Deloitte’s Approach	46
5.2	‘As – Is’ Understanding & Observations	47
5.3	Inputs from similar Organisations & Learnings	49
5.4	Recommendations	51
6	SKILL AVAILABILITY, TRAINING & DEVELOPMENT	56
6.1	Deloitte’s Approach	56
6.2	‘As – Is’ Understanding & Observations	57
6.3	Inputs from similar Organisations and Learnings.....	58
6.4	Our Recommendations	59
7	WAY FORWARD AND ACTION PLAN.....	69
7.1	Action Plan for Implementation	69
7.2	Empowerment / Autonomy of Regulators	70
	ANNEXURE 1: MEETINGS HELD	71
	ANNEXURE 2: MINUTES OF INCEPTION MEETING	74
	ANNEXURE 3: FUNCTIONS OF MEMBER REGULATORS	77
	ANNEXURE 4: CURRENT TRAINING PROGRAMMES OF REGULATORS	81

ANNEXURE 5: CURRENT TRAINING INITIATIVES OF CCI	86
ANNEXURE 6: TRAINING PROGRAMMES IDENTIFIED	89
ANNEXURE 7: CONCEPT NOTE FOR REGULATORY RESEARCH INSTITUTE.....	116

1 About this document

This document is the final report of the assignment titled 'Study on assessing Capacity Building requirements for regulatory staff' carried out by Deloitte Touché Tohmatsu India Private Limited (Deloitte) for the 'Forum of Indian Regulators' (FoIR).

1.1 Background

The Forum of Indian Regulators is a forum of central and state regulators. The list of central regulators, that are being studied as part of this engagement is mentioned below:

- a) Airport Economic and Regulatory Authority (AERA)
- b) Central Electricity Regulatory Commission (CERC)
- c) Competition Commission of India (CCI)
- d) Petroleum and Natural Gas Regulatory Board (PNGRB) and
- e) Tariff Authority for Major Ports (TAMP)

In addition to the above Central regulators, FoIR also consists of State Electricity Regulators, who are members of the forum.

The Forum of Indian Regulators, registered as a society under the Societies Registration Act in 2000, was conceived as a common platform to discuss emerging issues in regulatory practices, to evolve a common strategy to meet the challenges before the regulators and to share information and experience among regulators, academic and research institutions in India.

1.2 Scope of Work

Deloitte has been engaged by the Forum of Indian Regulators (FoIR) to carry out a **'Study on assessing Capacity Building requirements for regulatory staff'**.

As stated in the Terms of Reference, the objective of this assignment is to evolve effective Human Resource Development policies in a regulatory body which will strengthen the organisation's ability to fulfil its mission and meet emerging challenges.

The scope of work for the said engagement is as shown in the following page. The first column indicates the reference to the Terms of Reference issued by FoIR. The second column is the scope as provided in the Terms of Reference.

Ref. to ToR	Area of Work	Chapter in this document
A1	To critically analyse the existing organisation structure, recruitment policies, promotional avenues and compensation payable to the employees of different regulatory bodies with a view to identify shortcomings in the existing arrangement which impede induction and retention of talented personnel in the organizations	Discussed in ' As – Is ' understanding section, in Chapters 3 to 6
A2	Suggest modifications in organisation structure, if existing structure found inadequate to effectively carry out mandate of the regulatory bodies	Chapter 3: Organization Structure
A3	Categorise staff in the regulatory bodies into different groups based on skill level and qualification required and suggest suitable recruitment policies in line with best industry practices. A detailed analysis of borrowing from other govt. departments may be carried out.	Chapter 5: Recruitment, Promotions and Career Growth
A4	Evolve suitable compensation packages for different categories of staff factoring constraints of existing government funding policies and need to attract & retain skilled manpower.	Chapter 4: Compensation
A5	Design suitable mechanism of career progression of employees to address the issue of providing adequate promotion avenues and rewarding efficiency based on objective performance appraisal. In this regard the possibility of formation of a common cadre of employees for various regulatory bodies may be explored	Chapter 5: Recruitment, Promotions and Career Growth
B1, B2 and B3	Study existing training policies adopted by the Regulatory Authorities with a view to align them with the objective of having trained manpower to meet organisational requirements. Identify training requirements of different categories of employees of regulatory bodies to enable them to upgrade skills and keep them abreast with the current happenings in their domain of work and suggest mechanism to impart such training periodically through reputed institutes identified – domestic & international; Suggest ways and means of funding (domestic & international) for training of employees.	Chapter 6: Skill Availability, Training and Development
C1	To draw up a detailed action plan to implement the recommendations of the study. While preparing the action plan, the recommendations that can be implemented within the framework of existing administrative & financial powers available to the regulatory bodies and those which need government approval may be identified.	Chapter 7: Way Forward & Action Plan

We have dealt with each of the chapters 3 to 6 under the following sections:

- Deloitte's approach
- 'As is' understanding & Observations
- Inputs from other organisations & Learnings
- Recommendations

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2 Deloitte's Approach to this study

Our overall approach to this study is as shown below:



1. **“As is” understanding & Observations:** This step involved two parts: (i) Data Collection and (ii) One on one and focussed group discussions. Based on the above two inputs, Deloitte studied the member organizations of FoIR. Deloitte met key representatives from each member regulator to understand their ‘As – Is’ scenario and their challenges, expectations from this study, issues to be addressed etc. The discussions were carried out in line with the requirements of the scope of work. Deloitte has made its observations based on the data collected and based on the discussions held with various regulators. The ‘As is’ analysis culminated with an inception presentation which was made on December 7, 2011 to the working group.

The list of all meetings conducted by Deloitte is captured in Annexure 1 of this report. The minutes of the Inception presentation is documented as Annexure 2 of this report.

2. **Inputs from similar organisations & Learnings:** The Deloitte team has considered different organisations for different sections of this study based on the context. For example, for the structural aspects, Deloitte has looked at the organisation structure of other regulators in India and outside while for the compensation aspects, Deloitte has looked at regulators in India and some of the regulated entities. For the training and capacity building aspects, we have considered training and research institutes that have been set up by regulators in India and outside. This is captured in the table below:

Section	Organisations studied for benchmarking
Organisation Structure	<ul style="list-style-type: none"> • Federal Energy Regulatory Commission (FERC) • Securities and Exchange Board of India (SEBI) • Telecom Regulatory Authority of India (TRAI) • UK Civil Aviation Authority
Compensation, Recruitment, Promotions & Career Growth	<ul style="list-style-type: none"> • Schedule A Central Public Sector Enterprises in India such as NTPC, PGCIL etc which are regulated entities in the electricity sector • Securities and Exchange Board of India (SEBI)
Skill Availability, Training and Development	<ul style="list-style-type: none"> • Competition Commission of India (which as a member regulator has put in place good practices for training and capacity building) • National Institute of Securities Markets (NISM), under SEBI • National Regulatory Research Institute (NRRI) under NARUC • Accounting Research Foundation (ARF) under Institute of Chartered Accountants of India

- 3. Design / Recommendations:** It was observed during the study that the functions of each regulator vary significantly based on their mandate according to the Acts which govern them. **A detailed analysis of the respective Acts governing the regulators has been included in Annexure 3 of this report.**

In this context, it was felt that the recommendations may also need to be customised or finetuned for the regulators depending on the section. This classification is shown in the table below:

Section	Nature of recommendations
Organisation Structure	<ul style="list-style-type: none"> While a typical regulatory structure has been recommended for all regulators, certain specific recommendations have been made for each regulator based on their mandate. AERA and TAMP are primarily tariff¹ regulators and hence have been grouped into one subset. The mandate of CERC and PNGRB is wider and includes sector regulation, beyond determination of tariff. For example, CERC is responsible for promoting investments in the electricity sector, issuing of licenses, monitoring technical performance parameters – such as grid code etc. PNGRB is responsible for registration of entities, ensuring availability of notified petroleum, petroleum products and natural gas, promoting competition in the sector etc. CCI is responsible for regulation of competition across sectors and hence has been considered separately.
Compensation, Recruitment, Promotions & Career Growth	<ul style="list-style-type: none"> As compensation (Pay and Allowances) are linked to grades and considering that the regulators are to operate within the framework permissible under the Government of India rules, a common recommendation on compensation, grades and their corresponding promotion channels have been recommended
Skill Availability, Training and Development	<ul style="list-style-type: none"> This section has a mix of general recommendations which are applicable to all regulators and regulator specific recommendations The competencies required for each functional group and the corresponding training programs identified are specific to each regulator

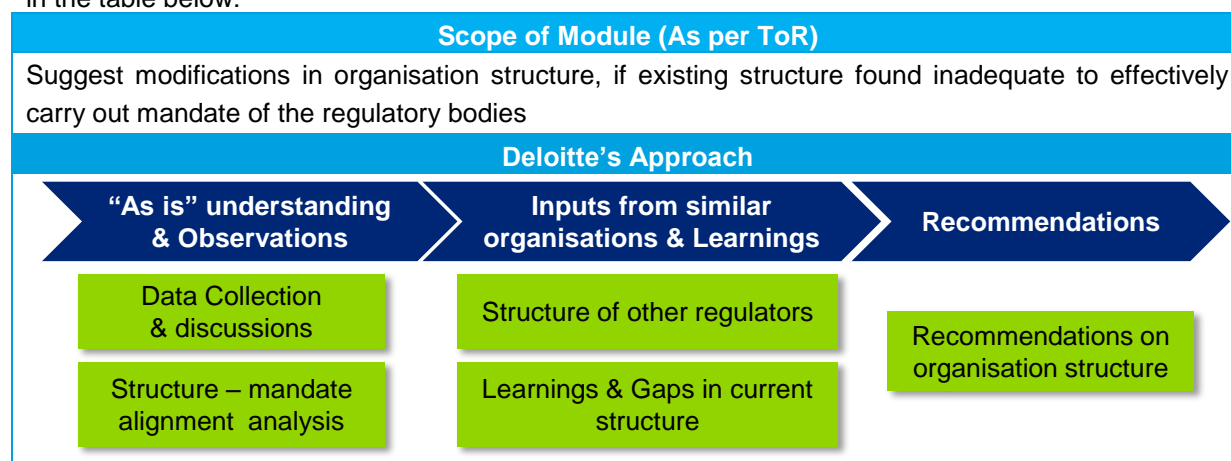
¹ As per the act, AERA is also responsible for monitoring performance of Airports.

According to the current mandate of TAMP, it is responsible for regulation of tariff levied by the port for services rendered or facilities provided; Fixation of charge, for the use of properties belonging to, or in possession or occupation of, the port or place within the limits of the port or the port approaches; Fixation of fees for pilotage, hauling, mooring, re-mooring, hooking and measuring and other services rendered to the vessels and port dues on vessels entering the port.

3 Organisation Structure

3.1 Deloitte's Approach

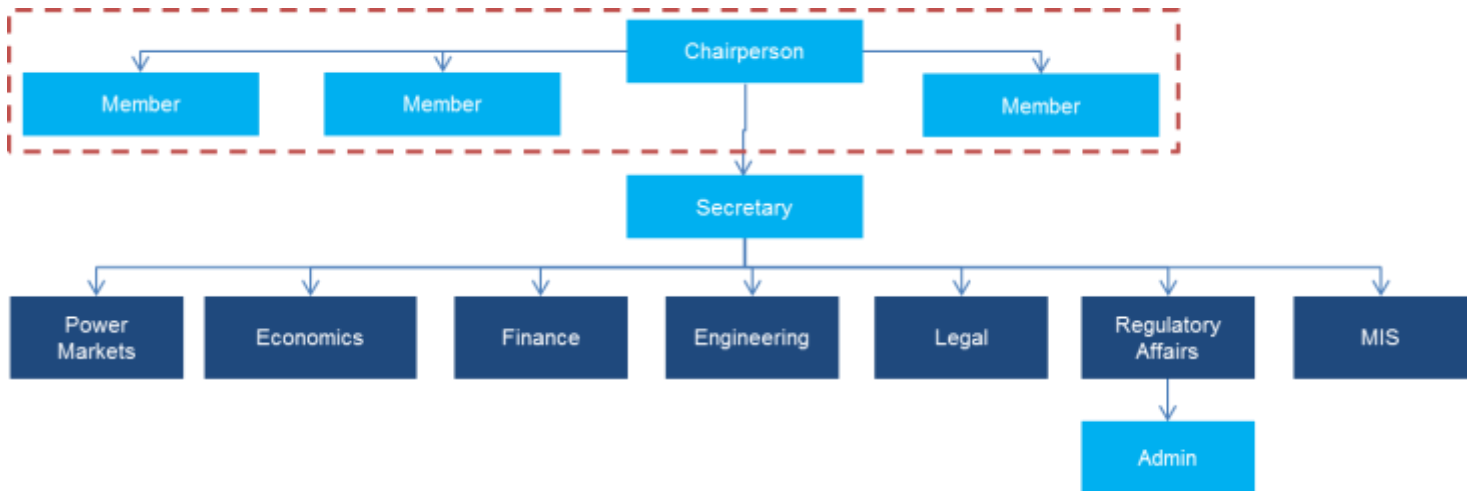
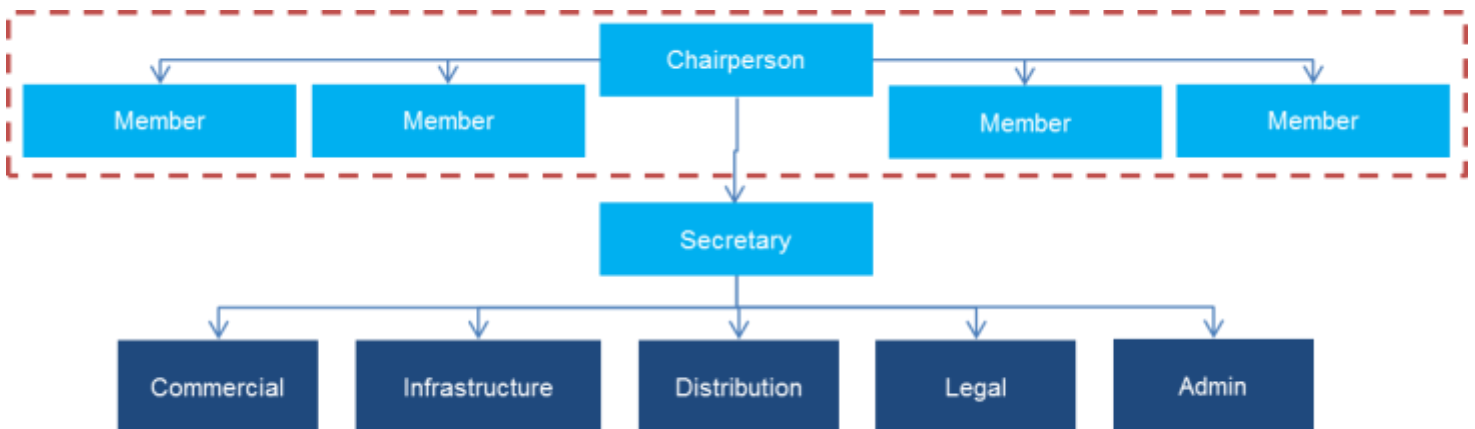
The scope of work pertaining to this section and Deloitte's approach to the same has been illustrated in the table below:



3.2 'As-Is' Understanding & Observations

In this section, we have discussed the structure of member regulators in 3 groups: (i) CERC & PNGRB (ii) AERA & TAMP and (iii) CCI. The rationale for the same is provided below:

- The mandate of CERC and PNGRB is wider and includes sector regulation, beyond determination of tariff. For example, CERC is responsible for promoting investments in the electricity sector, issuing of licenses, monitoring technical performance parameters – such as grid code etc. PNGRB is responsible for registration of entities, ensuring availability of notified petroleum, petroleum products and natural gas, promoting competition in the sector etc.
- AERA and TAMP are primarily tariff regulators and hence have been grouped into one subset.
- CCI is responsible for regulation of competition across sectors and hence has been considered separately.

‘As is’ structure of CERC**‘As is’ structure of PNGRB**

Manpower Status in CERC & PNGRB as per data provided in February 2012:

CERC				PNGRB			
Sl.	Designation	Sanctioned	Filled	Sl.	Designation	Sanctioned	Filled / Adjusted
1	Secretary	1	1	1	Secretary	1	1
2	Chief	4	1	2	Advisor	4	4
3	Joint Chief	5	4	3	Joint Advisor	4	4
4	Deputy Chief	13	11	4	Deputy Director	4	3
5	Integrated Financial Advisor	1	0	5	Assistant Director	2	2
6	Assistant Secretary	2	2	6	Bench Officer	1	0
7	Assistant Chief	16	12	7	Principal Private Secretary	1	1
8	Bench Officer	2	2				
9	Principal Private Secretary	4	2				
10	Pay and Accounts Officer / Senior Accounts Officer	2	2				
Total (Officers)		50	37	Total (Officers)		17	15
11	Private Secretary	5	5	8	Accountant	1	1
12	Assistant	6	6	9	Cashier	1	1
13	Personal Assistant	7	2	10	Private Secretary	9	7
14	Stenographer	3	2	11	Personal Assistant	6	6
15	Receptionist cum Telephone Operator	1	0	12	Assistant cum DEO	6	2
16	Driver	4	4	13	UDC	5	2
17	Senior Peon	2	0				
18	Peon	2	2				
TOTAL (Non Officers)		30	21	TOTAL (Non Officers)		28	19
TOTAL (All Posts)		80	58	TOTAL (All Posts)		45	34

Our Observations on structure of CERC & PNGRB**CERC:**

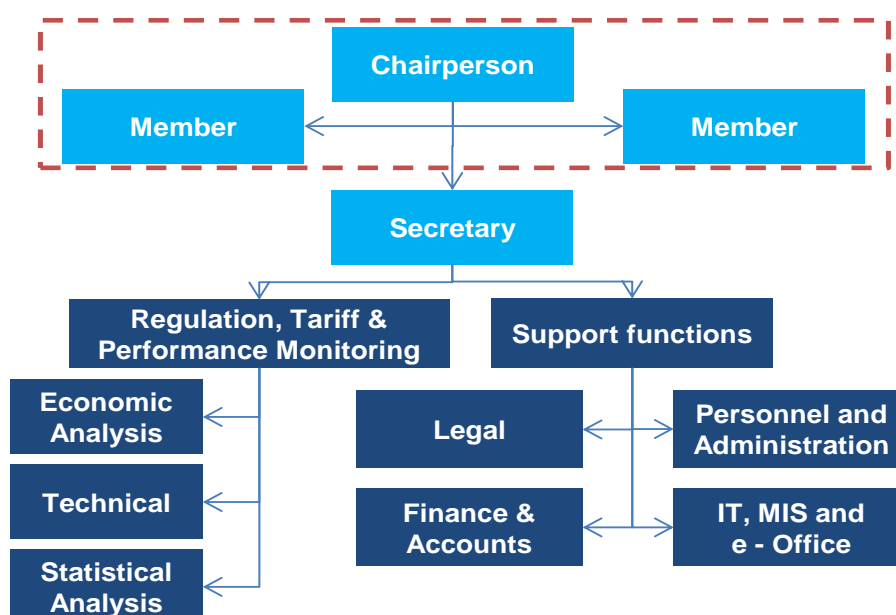
- Structure alignment with functions mandated:** As per the Electricity Act, the functions of CERC can be broadly classified under Regulatory & Advisory. Currently, as the structure is built on specialisations, the regulatory and advisory roles are not distinct. The current structure is well suited to execute routine activities such as tariff regulation. However, there is a need for adequate focus on functions such as developing power markets including developing new market mechanisms to create competition in the sector.
- Type of structure:** Unlike other regulators like Competition Commission of India and FERC which have function – based structure, CERC is currently structured based on specialization. Cross disciplinary work is carried out through specific teams constituted for the specific purpose; these teams report to the Secretary.
- Manpower adequacy in the existing structure:** It may be noted that while the sanctioned structure seems to have dedicated posts to focus on developing power markets, i.e Chief (Economics), this function is presently being managed through consultants (Senior Advisor – Power Markets and Chief Advisor – Economics). Similarly, CERC's recruitment rules also provide for the posts of Dy. Chief (Environment) and Dy. Chief (Consumer & Public

Relations). It may also be noted that currently, over 20% of the posts are vacant. However, some of these vacancies are being managed through consultants. CERC needs to conduct a detailed manpower study to assess the actual manpower requirement for the given mandate and volume of work load.

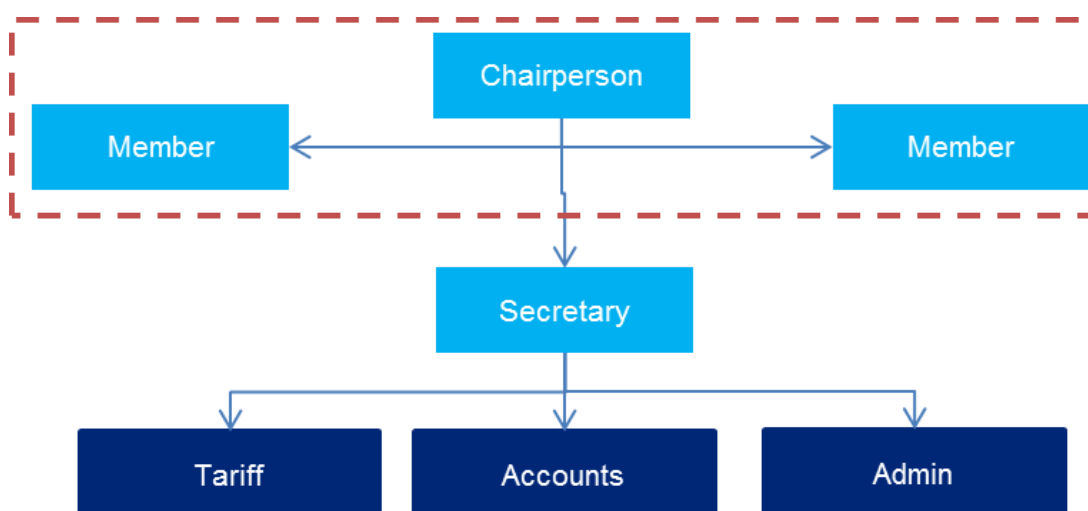
PNGRB:

1. **Structure alignment with functions mandated:** the functions presently represented in the structure are suitably aligned to address the requirements, as mentioned in the Act.
2. **Type of structure:** The organization is nascent and different possibilities for an organization structure are being currently explored in PNGRB.
4. **Manpower adequacy in the existing structure:** While there are vacancies, PNGRB is currently managing its operations through officers on deputation or have been lent by the organisations in the sector.

‘As is’ structure of AERA



‘As is’ structure of TAMP



Our Observations on structure of AERA & TAMP

AERA:

1. **Structure alignment with functions mandated:** The structure appears fairly aligned with its functions mandated under the Act. As long as the mandate of this regulator is limited to the regulation of tariff, fixation of UDF and performance monitoring, the structure may continue to remain as is presently the case.
2. **Type of structure:** Currently, AERA being a compact structure with only 12 officer posts at the operating level (excluding Chairman, member & Sr PPS, PPS), the structure has been undergoing a number of changes based on the needs. However, it is predominantly based on specialization. At present different airports are allocated to different individuals, all performing similar tasks of tariff fixation etc.
3. **Manpower adequacy in the existing structure:** Airport Economic regulation is a concept that has been recently introduced in India. As a result, it has been a challenge to find individuals with the relevant experience or skills. All officers in the organisation are currently on deputation from government departments or from Airport Authority of India Limited. The organisation has retained consultants for providing them the expertise. During the discussions, AERA expressed that they would like to continue with this model due to the limited availability of relevant skills or experience in the market.

TAMP:

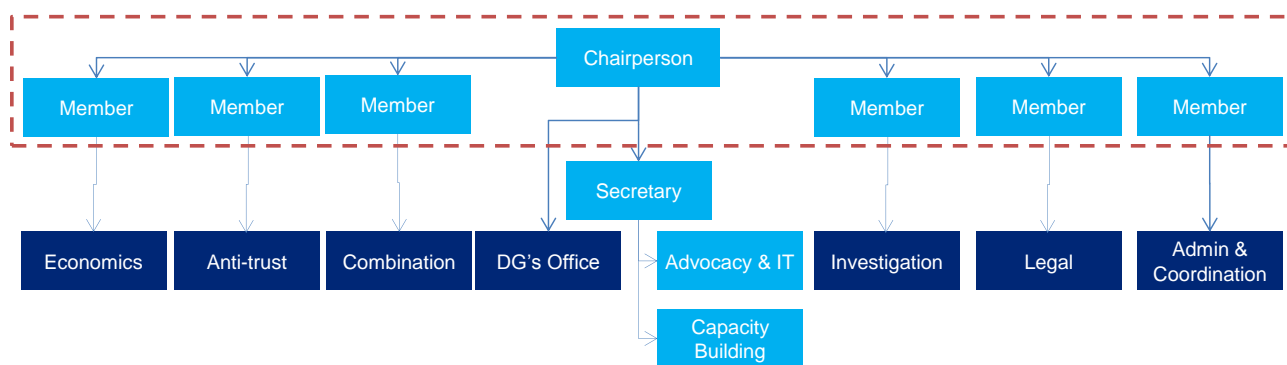
1. **Structure alignment with functions mandated:** The current mandate of TAMP is primarily focused on Tariff regulation (Regulation of tariff levied by the port for services rendered or facilities provided; Fixation of charge, for the use of properties belonging to, or in possession or occupation of, the port or place within the limits of the port or the port approaches; Fixation of fees for pilotage, hauling, mooring, re-mooring, hooking and measuring and other services rendered to the vessels and port dues on vessels entering the port) and the structure is primarily focused to execute the tariff regulation function. Future mandate of the organization is in the draft bill stage and the organization structure and its alignment to the new mandate would need to be re-visited accordingly.

Existing Functions	Functions as provided in Draft Bill
Regulation of tariff levied by the port for services rendered or facilities provided	Fixing of rates, from time to time, including the statement of conditions in respect of services provided by Port Authorities and Private Operators
Fixation of charge, for the use of properties belonging to, or in possession or occupation of, the port or place within the limits of the port or the port approaches.	Fixing of rates, from time to time, including the statement of conditions for use of properties of the port authorities
Fixation of fees for pilotage, hauling, mooring, re-mooring, hooking and measuring and other services rendered to the vessels and port dues on vessels entering the port.	Determining and prescribing the conditions in relation to levy of the rates referred to in previous function

Existing Functions	Functions as provided in Draft Bill
	Laying down the performance norms and standards of quality, continuity and reliability of service to be provided by the port authorities and private operators and monitor actual performance and services levels provided with a view to secure compliance of such prescribed norms and standards by the port authorities and private operators;
	Monitoring the performance of respective duties and obligations under the Concession Agreement by a Port Authority and the concerned Private Operator and to determine and decide upon any disputes between them, unless the parties have agreed to refer the dispute to arbitration, as provided in the said Concession Agreement;

2. **Type of structure:** The structure currently has 6 officers (Secretary not included) at the operating level with each of them allocated to functions.
3. **Manpower adequacy in the existing structure:** The current number of officers sanctioned has been filled. However, if we consider the report on manpower requirements by the Staff Inspection Unit, appointed by the Ministry, there are vacancies which need to be filled. A separate manpower study may be required to assess the actual manpower requirement for the regulator based on the future mandate of TAMP.

Competition Commission of India



Manpower Status in CCI as per data provided in October 2011:

Sl.	Designation	Stream	Sanctioned	Filled	Sl.	Designation	Stream	Sanctioned	Filled	
1	Secretary		1	1	8	Private Secretary	Sr. PPS	1	0	
2	Adviser	FA	2	2			PPS	6	5	
		Eco	3	3			PS	3	2	
		Law	3	2		Total (Non Officers)			10	7
3	Director	FA	2	0	TOTAL			156	81	
		Eco	5	2						
		Law	5	2						
4	Joint Director	FA	4	1						
		Eco	10	2						
		Law	10	5						
		IT	1	0						
		F&A	1	1						
5	Deputy Director	FA	10	8						
		Eco	18	3						
		Law	18	11						
		IT	1	1						
		CS	5	3						
		F&A	1	0						
6	Assistant Director	IT	3	3						
		CS	14	10						
		LS	2	2						
		F&A	2	2						
7	Office Manager	CS	20	9						
		F&A	4	1						
		LS	1	0						
Total (Officers)			146	74						

Our Observations on structure of CCI

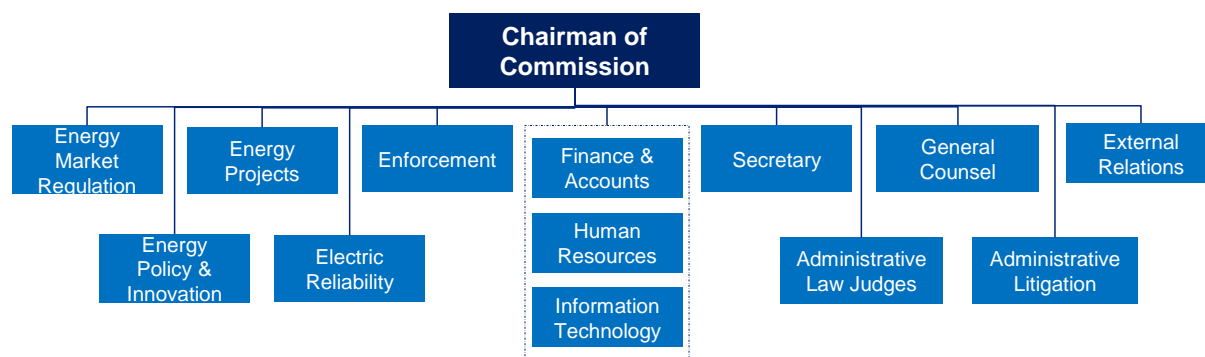
1. **Structure alignment with functions mandated:** The current structure covers all the functions of the mandate.
2. **Type of structure:** Unlike other regulators, CCI is structured function wise. Each division consists of a pool of experts and support staff drawn from multiple disciplines. This ensures greater process accountability and better coordination to deliver the output of a particular function. In fact, this is similar to the manner that FERC is structured.
3. **Manpower adequacy in the existing structure:** While the data shows a large number of vacancies, the discussions with CCI indicate that they are able to manage their functions with the limited manpower. This is also possible because CCI takes the support of consultants and experts on a contract basis to aid in its functioning when they are unable to fill in all vacancies.

3.3 Inputs from similar Organisations & Learnings

As part of this engagement, Deloitte has studied the structures of regulators such as Federal Energy Regulatory Commission (FERC, USA), Securities and Exchange Board of India (SEBI, India), TRAI and UK Civil Aviation Authority (UK). The structures of these organizations are shown in this section.

Federal Energy Regulatory Commission

The overall structure of the FERC is shown below:



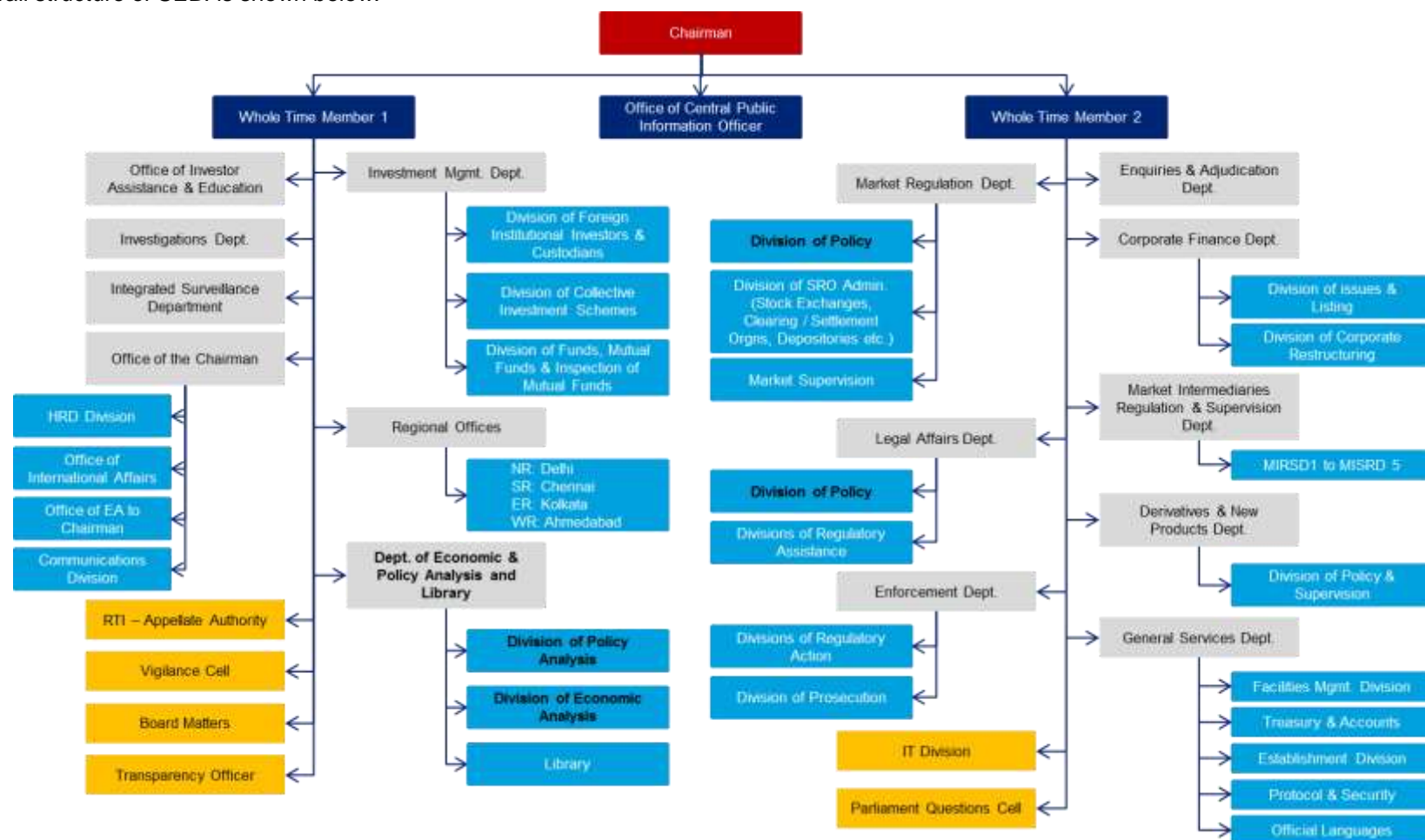
FERC carries out the following activities as part of its functions:

Sl.	Function Name	Key Activities Performed
1	Energy Market Regulation	<ul style="list-style-type: none"> Advise on regulation of the natural gas, Electric power & Oil pipeline industries with regard to the various acts that they are governed by Look at matters involving energy markets, tariffs and pipeline rates relating to electric utility and natural gas and oil pipeline facilities and services Act to prevent the exercise of market power by wholesale power sellers, electric transmission companies, and natural gas and oil pipeline companies - by striking an appropriate balance between competition and regulation (similar to the role of the Competition Commission of India).
2	Energy Policy and Innovation	<ul style="list-style-type: none"> Develop and formulate policies and regulations to address emerging issues affecting wholesale and interstate energy markets Undertake significant outreach to other regulators and industry, conduct studies and prepare reports, and recommend policy reforms to the Commission for consideration Focus on the following areas to bring about reforms that advance the goals of the Commission, taking into account energy and environmental concerns: <ul style="list-style-type: none"> Demand Response Distributed Generation Energy Efficiency Enabling advanced technologies (e.g., advanced metering and communications technologies) Smart Grid Standards Transmission Issues (e.g., pricing, cost allocation and siting) Integration of Renewable Energy

Sl.	Function Name	Key Activities Performed
		<ul style="list-style-type: none"> – Storage – Electric Vehicles – Operational and Market Efficiency (electric markets and interstate pipeline) – Carbon and greenhouse gas issues (e.g., clean coal, carbon sequestration, carbon trading)
3	Energy Projects	<ul style="list-style-type: none"> • Approval and oversight of hydroelectric and natural gas pipeline energy projects that are in the public interest • Certify new gas pipeline projects and authorize and monitor hydroelectric projects • Focus on Project siting and development; Balancing environmental and other concerns; Ensuring compliance; and Safeguarding the public.
4	Electric Reliability	<ul style="list-style-type: none"> • Oversee the development and review of mandatory reliability and security standards. Oversee compliance with the approved mandatory standards by the users, owners, and operators of the bulk power system. • Participate in the standards development process to help improve the quality of reliability standards • Monitor the compliance of the users, owners, and operators of the bulk power system with the reliability standards; periodic and unscheduled reviews and audits • Analyse and investigate complaints, blackouts, near-misses, etc., on the bulk power system to determine if reliability standards were violated, changes to the reliability standards are warranted, or if the reliability standards are adequate for their intended purpose.
5	Enforcement	<ul style="list-style-type: none"> • Serve the public interest by protecting consumers through market oversight / surveillance / studies; assuring compliance with tariffs, rules, regulations, and orders; detecting, auditing, and investigating potential violations; and crafting appropriate remedies, including civil penalties and other measures.
6	Administrative Law Judges, General Counsel and Administrative Litigation	<ul style="list-style-type: none"> • Handle legal matters of the commission.

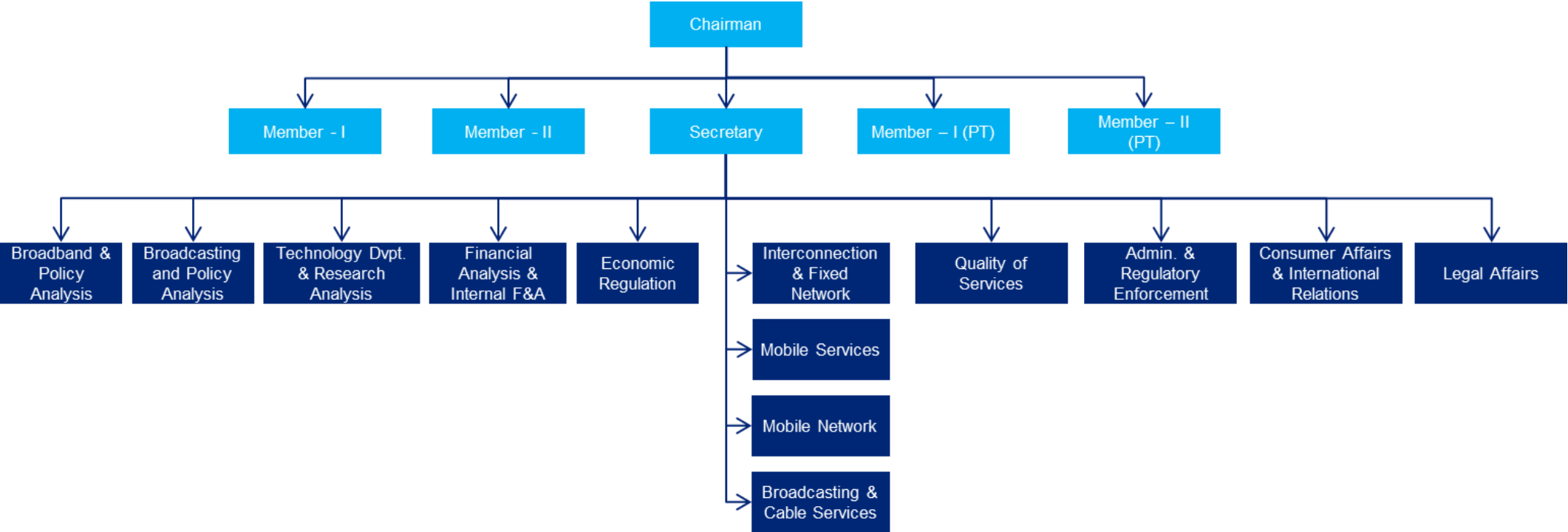
Securities and Exchange Board of India

The overall structure of SEBI is shown below.



In the structure above, the major functions have been indicated in grey and the sub functions in blue. The support functions / non-core functions have been indicated in orange colour.

Telecom Regulatory Authority of India



The functions of the various departments in TRAI have been discussed in the table below:

Sl.	Name of Department	Activities performed by the function
1	Broadband & Policy Analysis	<ul style="list-style-type: none"> Handle technical issues relating to convergence in telecommunication and IT Sectors Monitor performance of Internet Service Providers (ISP)'s subscribers growth Manage IT needs of TRAI Policy related issues in Telecommunications
2	Broadcasting & Policy Analysis	<ul style="list-style-type: none"> Lay down the overall Regulatory framework and implementation for the Broadcasting and Cable TV Service Sector
3	Technology Development and Research Analysis	<ul style="list-style-type: none"> Build up capacity for technical research in telecommunications with the aim of understanding and identifying the technology trends, their uses and potential uses so that TRAI is able to make informed decisions with an understanding of the implications for service providers, consumers and citizens in the regulation of communications markets.
4	Financial Analysis and Internal F&A	<ul style="list-style-type: none"> Provide advice on all aspects relating to cost methodologies and costing of telecom services, compilation of analysis of financial information/data of service providers etc. Internal F&A
5	Economic Regulation	<ul style="list-style-type: none"> Advise the Authority in framing tariff policy; fixation of tariffs for different telecommunication services in the country Advise the Authority on measures to promote Prepare and publish Indian telecom service performance indicators
6	Interconnection and Fixed Network	<ul style="list-style-type: none"> Interconnection related issues Monitor compliance of licences and also the Regulations/Directions/Orders issued by the Division Optical access network, cable landing stations, numbering plan, NLD-ILD calling cards, Intelligent Networks and domestic and international leased circuits/VPNs/bandwidth
7	Mobile Services	<ul style="list-style-type: none"> Management of Spectrum including its efficient utilisations, and its refarming. Issues related to introduction of new wireless technologies and related regulatory issues
8	Mobile Network	<ul style="list-style-type: none"> Issues relating to compliance of terms and conditions of various licenses issued to mobile operators Recommendations related to various issues/aspects of 2G, 3G mobile services and mobile number portability Ensuring compliance of matters relating to Universal Service Obligations, preparation of Performance Monitoring Report Support to ITU/APT/SATRC Study Group activities
9	Broadcasting and Cable Services	<ul style="list-style-type: none"> Monitor Interconnection, Tariff, Quality of Service, Licensing issues relating to Broadcasting & Cable TV Services Issues relating to Modernization/Digitization of Broadcasting Sector and introduction of new Broadcasting Services Monitoring and follow up of the complaints
10	Quality of Service	<ul style="list-style-type: none"> Lay down the standards of quality of service to be provided by the service providers; ensure the quality of service and conduct the periodical survey of such service provided by the service providers so as

Sl.	Name of Department	Activities performed by the function
		to protect interest of the consumers of telecommunication service. <ul style="list-style-type: none"> Lay down the frame work for redressal of grievances of consumers of telecom sector, maintaining register of inter-connect agreements, matters relating to Radio Paging, PMRTS and VSAT service.
11	Admin, RE	<ul style="list-style-type: none"> Planning and control of human resource development in TRAI as well as for enforcement of all the Regulations / Directions / Orders issued by TRAI
12	Consumer Affairs and International Relations	<ul style="list-style-type: none"> Consumer advocacy Facilitate registration of consumer organizations and NGOs with TRAI Handling of generic consumer complaints Coordination with all International Organisations / bodies and other International Regulatory Bodies
13	Legal	<ul style="list-style-type: none"> Render legal advice to the Authority on all regulatory issues. Manage all litigation matters in which TRAI is a party

UK Civil Aviation Authority

In the case of AERA, the structure of the UK Civil Aviation Authority (UKCAA) was looked at. The CAA employs around 1,000 staff. Of this number, 800 work within the Safety Regulation Group. The remaining work mainly within the Economic Regulation Group, the Consumer Protection Group and the Directorate of Airspace Policy, with a few based at regional offices within the UK and overseas offices. CAA also has a Corporate Centre which includes the Chairman's Office and the CAA Board and corporate functions. The organisation is structured as shown below:



Learnings

In this section, the learnings from the various benchmark regulators have been presented under four broad heads:

- a) General Learnings
- b) Policy and Research
- c) Investigation and Enforcement and
- d) Consumer Affairs

a) General Learnings

Sl.	Regulator	Observations
1	FERC	<p>The mandate of a regulator such as FERC is wider than that of the regulators who are members of FoIR. FERC is involved in the regulation of Power, Natural Gas, Hydropower and LNG. Comparisons with FERC shall need to be made in the context of this difference in mandate.</p> <p>The key difference in the structures of the Indian regulators and FERC is that FERC is structured functionally, unlike Indian regulators that are structured based on specialization. FERC is an organization with total manpower strength of 1468 employees, of which 1449 are regular employees.</p>
2	SEBI	In the case of SEBI, while the total manpower employed by SEBI presently is about 633, the FOIR member regulators have a sanctioned strength of less than 100 each. Every regulator needs to have a separate strategy in terms of its size and headcount depending on their future direction based on their mandate.
3	TRAI	In the TRAI structure shown it may be seen that the policy making role and economic analysis is performed by a distinct set of teams and the technical roles are handled by separate functions (structured based on service provided). Investigation and Enforcement activities are carried out by the Technical teams that handle the particular service offering. Consumer complaints of a generic nature are handled by the Consumer Affairs and International Relations function.
4	UK CAA	Comparisons between the UK Civil Aviation Authority and AERA have been limited as AERA is responsible for regulation of tariff and performance management only. The mandate of the UKCAA additionally includes aspects such as Policy and Strategy determination, safety etc.

b) Policy and Research

- Federal Energy Regulatory Commission

The key aspects of the FERC structure, pertaining to Policy and Research, which the members of FoIR may draw on are discussed in brief below:

Sl.	Function Name	Key Activities Performed
1	Energy Market Regulation	<ul style="list-style-type: none"> Advise on regulation; look at matters involving energy markets, tariffs and pipeline rates relating to electric utility and natural gas and oil pipeline facilities and services Take steps to maintain appropriate balance between competition and regulation
2	Energy Policy and Innovation	<ul style="list-style-type: none"> Develop and formulate policies and regulations to address emerging issues affecting wholesale and interstate energy markets Interface with other regulators and industry, conduct studies and prepare reports, and recommend policy reforms to the Commission for consideration Focus on upcoming areas to bring about reforms, taking into account energy and environmental concerns (Demand Response, Distributed Generation, Energy Efficiency, Smart Grid Standards etc.)
3	Energy Projects	<ul style="list-style-type: none"> Approval and oversight of hydroelectric and natural gas pipeline energy projects that are in the public interest Certify new gas pipeline projects and authorize and monitor hydroelectric projects Focus on Project siting and development; Balancing environmental and other concerns; Ensuring compliance; and Safeguarding the public.
4	Electric Reliability	<ul style="list-style-type: none"> Oversee the development and review of mandatory reliability and security standards. Oversee compliance with the approved mandatory standards by the users, owners, and operators of the bulk power system. Participate in the standards development process to help improve the quality of reliability standards Monitor the compliance of the users, owners, and operators of the bulk power system with the reliability standards; periodic and unscheduled reviews and audits Analyse and investigate complaints, blackouts, near-misses, etc., on the bulk power system to determine if reliability standards were violated, changes to the reliability standards are warranted, or if the reliability standards are adequate for their intended purpose.

- Securities and Exchange Board of India

The key aspects of the SEBI structure, pertaining to Policy and Research, which the members of FoIR may draw on are discussed in brief below:

Sl.	Name of Department	Name of Sub Function	Activities performed by the function
1	Department of Economic and Policy Analysis	Division of Policy Analysis (DPA)	<ul style="list-style-type: none"> Partnering / vetting of policy / concept papers Need based research Regulatory Impact Assessment and benchmarking of regulations Research Support to Committees and Working Groups set up by SEBI Development of Strategic Action Plan/Vision Statement
2		Division of Economic Analysis (DEA)	<ul style="list-style-type: none"> Track and analyse market developments Track and analyse of other economic developments Repository of data (and data analysis) Prepare and publish Annual Report Prepare and publish SEBI Bulletin and Handbook of Statistics Conduct periodic Investor Survey History of Securities Market Project
3	Market Regulation Department	Division of Policy	<ul style="list-style-type: none"> Handle policy and practice relating to Market SROs i.e., securities exchanges, clearing and settlement organizations and depositories; market policy, trading, clearance, settlement issues, risk management, and related areas Review rules and rule-change proposals of these Market SROs relating to market policy issues (except for listing matters standards in purview of Corporation Finance Department); Procedures for suspending trading of securities.

- Telecom Regulatory Authority of India

The key aspects of the TRAI structure, pertaining to Policy and Research, which the members of FoIR may draw on are discussed in brief below:

Sl.	Name of Department	Activities performed by the function
1	Broadband & Policy Analysis	<ul style="list-style-type: none"> Handle technical issues relating to convergence in telecommunication and IT Sectors Monitor performance of Internet Service Providers (ISP)'s subscribers growth Manage IT needs of TRAI Policy related issues in Telecommunications
2	Broadcasting & Policy Analysis	<ul style="list-style-type: none"> Lay down the overall Regulatory framework and implementation for the Broadcasting and Cable TV Service Sector
3	Technology Development and Research Analysis	<ul style="list-style-type: none"> Build up capacity for technical research in telecommunications with the aim of understanding and identifying the technology trends, their uses and potential uses so that TRAI is able to make informed decisions with an understanding of the implications for service providers, consumers and citizens in the regulation of communications markets.
4	Economic Regulation	<ul style="list-style-type: none"> Advise the Authority in framing tariff policy; fixation of tariffs for different telecommunication services in the country Advise the Authority on measures to promote Prepare and publish Indian telecom service performance indicators

c) Investigation and Enforcement

- Federal Energy Regulatory Commission

The key aspects of the FERC structure, pertaining to Investigation and Enforcement, which the members of FoIR may draw on are discussed in brief below:

Sl.	Function Name	Key Activities Performed
1	Enforcement	<ul style="list-style-type: none"> Serve the public interest by protecting consumers through market oversight / surveillance / studies; assuring compliance with tariffs, rules, regulations, and orders; detecting, auditing, and investigating potential violations; and crafting appropriate remedies, including civil penalties and other measures.

- Securities and Exchange Board of India

The key aspects of the SEBI structure, pertaining to Investigation and Enforcement, which the members of FoIR may draw on are discussed in brief below:

Sl.	Name of Department	Name of Sub Function	Activities performed by the function
1	Investigations Department		<ul style="list-style-type: none"> • Conduct investigations on potentially illegal market activities. • Provide referrals to the enforcement department. • Assist the enforcement department in enforcing SEBI action against violators (includes issuing show cause notices, appointment of Enquiry / Adjudication officers and consequential action up to serving of Chairman's order and maintenance of database)
2	Enforcement Department		<ul style="list-style-type: none"> • Responsible for proceedings related to regulatory action and obtaining redress for violations of securities laws and regulations against all market participants, issuers and individuals and other entities that breach securities laws and regulations. The following Divisions perform the functions of the Department:
		Division of Regulatory Action	<ul style="list-style-type: none"> • Enforce action against market misdemeanors through SEBI administrative proceedings. The role commences from the time the hearing before Chairman / Board is proposed. • Assist the Chairman / Board in its proceedings, prepare the orders, handle all matters relating to SAT, appeals against SAT orders and Court cases relating to regulatory action. • Frame the procedures relating to the above matters.
		Division of Prosecutions	<ul style="list-style-type: none"> • Handle work related to filing prosecution proceedings through the courts and follow up to obtain conviction. • Frame procedures for cooperation with public prosecutors, other agencies and for making referrals to prosecutors and other government agencies.

- Telecom Regulatory Authority of India

The key aspects of the TRAI structure, pertaining to Investigation and Enforcement, which the members of FoIR may draw on are discussed in brief below. It may be noted that the investigation and enforcement (and monitoring compliance) is performed by the respective technical teams.

Sl.	Function Name	Key Activities Performed
1	Interconnection and Fixed Network	<ul style="list-style-type: none"> Interconnection related issues Monitor compliance of licences and also the Regulations/Directions/Orders issued by the Division Optical access network, cable landing stations, numbering plan, NLD-ILD calling cards, Intelligent Networks and domestic and international leased circuits/VPNs/bandwidth
2	Mobile Services	<ul style="list-style-type: none"> Management of Spectrum including its efficient utilisations, and its reframing. Issues related to introduction of new wireless technologies and related regulatory issues
3	Mobile Network	<ul style="list-style-type: none"> Issues relating to compliance of terms and conditions of various licenses issued to mobile operators Recommendations related to various issues/aspects of 2G, 3G mobile services and mobile number portability Ensuring compliance of matters relating to Universal Service Obligations, preparation of Performance Monitoring Report Support to ITU / APT / SATRC Study Group activities
4	Broadcasting and Cable Services	<ul style="list-style-type: none"> Monitor Interconnection, Tariff, Quality of Service, Licensing issues relating to Broadcasting & Cable TV Services Issues relating to Modernization / Digitization of Broadcasting Sector and introduction of new Broadcasting Services Monitoring and follow up of the complaints
5	Quality of Service	<ul style="list-style-type: none"> Lay down the standards of quality of service to be provided by the service providers; ensure the quality of service and conduct the periodical survey of such service provided by the service providers so as to protect interest of the consumers of telecommunication service. Lay down the frame work for redressal of grievances of consumers of telecom sector, maintaining register of inter-connect agreements, matters relating to Radio Paging, PMRTS and VSAT service.

d) Consumer Affairs

- Federal Energy Regulatory Commission

In the case of FERC, it is seen that the complaints may be registered with the Office of Enforcement. Details of the same are provided below:

Sl.	Function Name	Key Activities Performed
1	Enforcement	<ul style="list-style-type: none"> Serve the public interest by protecting consumers through market oversight / surveillance / studies; assuring compliance with tariffs, rules, regulations, and orders; detecting, auditing, and investigating potential violations; and crafting appropriate remedies, including civil penalties and other measures.

- Securities and Exchange Board of India

The key aspects of the SEBI structure, pertaining to Consumer Affairs, which the members of FoIR may draw on are discussed in brief below.

Sl.	Name of Department	Name of Sub Function	Activities performed by the function
1	Investor Assistance and Education		<p>This division is responsible for educating investors and will act as a single point of contact for receiving and responding to investor complaints. The division will coordinate with the concerned functions internally and respond to consumer complaints.</p> <p>However, the various technical functions at SEBI also consist of Consumer Complaint Cells that work to resolve consumer complaints.</p>

- Telecom Regulatory Authority of India

The key aspects of the TRAI structure, pertaining to Consumer Affairs, which the members of FoIR may draw on are discussed in brief below.

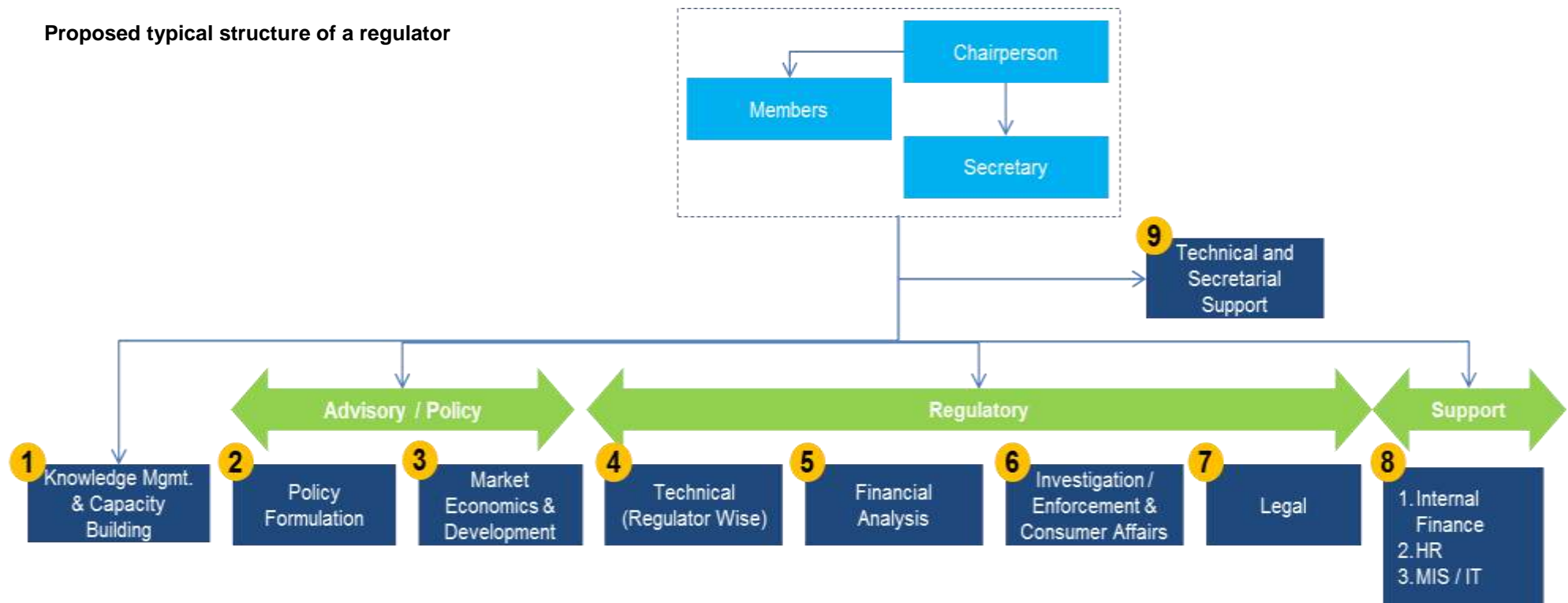
Sl.	Function Name	Key Activities Performed
1	Consumer Affairs and International Relations	<ul style="list-style-type: none"> • Consumer advocacy • Facilitate registration of consumer organizations and NGOs with TRAI • Handling of generic consumer complaints • Coordination with all International Organisations / bodies and other International Regulatory Bodies

3.4 Our Recommendations

As part of this engagement, Deloitte has proposed a regulator's structure that contains the typical functions of a regulator, as shown below. This structure has been proposed after considering the observations in the existing structure and the learnings from similar organisations. As the mandate of each sector's member regulator of FoIR is different (as determined by their respective Acts), this structure needs to be customized by the individual regulators as required.

The structure shown below consists of three distinct areas – Advisory / Policy Making, Regulatory (including tariff) and Support functions.

Proposed typical structure of a regulator



Key activities by different functions under the proposed structure:

#	Function	Description of Key Activities
1	Knowledge Management and Capacity Building	<ul style="list-style-type: none"> Organize / Collate data to serve as reference for the Regulator Undertake capacity building initiatives to improve internal capability
2	Policy Formulation	<ul style="list-style-type: none"> Advise on Formulation / Revision of National Policy Partnering / vetting of policy / concept papers Regulatory Impact Assessment and benchmarking of regulations Development of Strategic Action Plan / Vision Study market practices of other regulators and adopt such best practices Interface with other regulators and stakeholders related to Policy formulation
3	Market Economics and Development	<ul style="list-style-type: none"> Study the Economic Scenario in the market Take steps to promote investment in industry Advise on promotion of competition, efficiency & economy in the industry
4	Technical (Regulator Specific)	<ul style="list-style-type: none"> Adherence to technical performance parameters – quality, reliability, continuity etc. Provide technical expertise as and when required Development of performance standards Creation of Grid Code (CERC / PNGRB)
5	Financial Analysis	<ul style="list-style-type: none"> Tariff determination Issue licenses / permits Provide advice to the Commission from a financial perspective in evaluation of policies / tariff petitions / performance etc.
6	Investigation / Enforcement	<ul style="list-style-type: none"> Market oversight and surveillance; Ensure compliance with tariffs, rules, regulations, and orders; Detect / audit and investigate potential violations; and craft appropriate remedies Introduce standardization, SOPs, reporting mechanisms to bring in accountability
7	Legal	<ul style="list-style-type: none"> Provide legal advice to the commission on cases referred to / to be acted on by the commission
8	Internal Finance	<ul style="list-style-type: none"> Internal finance and accounts of the regulator
	HR	<ul style="list-style-type: none"> Internal HR, administration, payroll, reimbursements / claims etc.
	MIS / IT	<ul style="list-style-type: none"> Manage IT requirements of regulators Interface with Knowledge Management team to provide support for MIS
9	Technical and Secretarial Support	<ul style="list-style-type: none"> Support to the Commission on Regulatory matters Provide administrative support to the commission to execute its functions

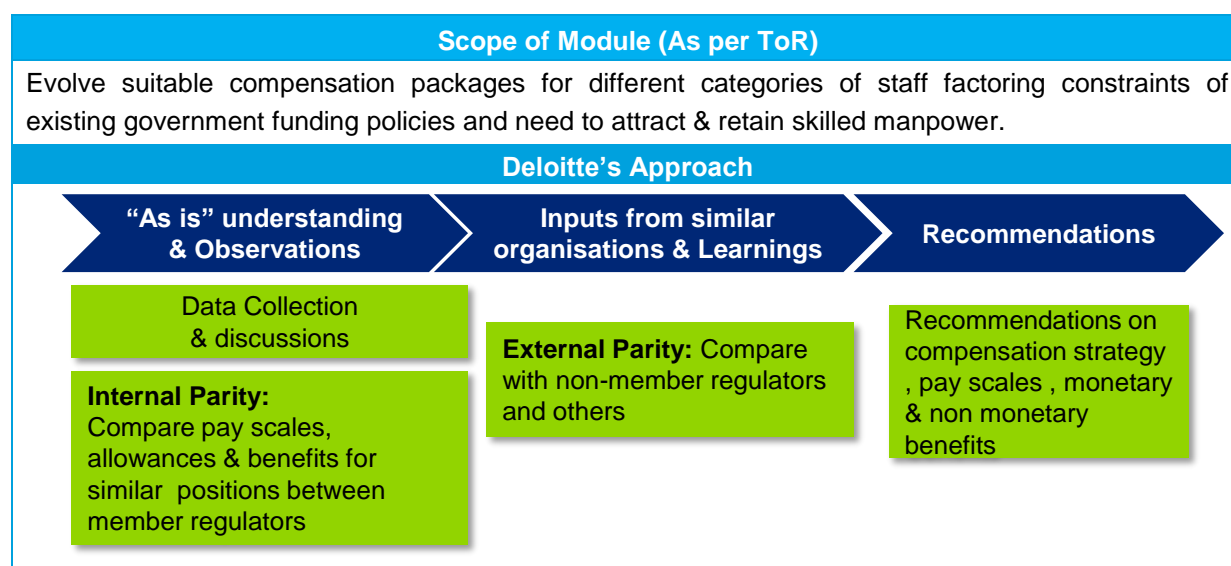
Salient features of the proposed structure that impact certain regulators:

1. **Specialisation based structure for CERC / PNGRB / TAMP / AERA:** The proposed structure is organized based on speciality with experts in the respective disciplines posted in the corresponding function. In such a structure, a cross functional team may be constituted by drawing on expertise from various functions.
2. **Regulatory functions:** In case of **CERC / PNGRB / TAMP / AERA**, in terms of volume, majority of the work of the regulators are on operational activities (indicated as regulatory functions in the proposed structure), such as tariff determination, monitoring of performance standards, issue of licence / permits etc, this part of the structure would be applicable to all the above regulator – In terms of disciplines, this corresponds to technical, financial analysis and legal functions.
3. **Creation of an Investigation / Enforcement / Consumer Affairs Function in CERC / PNGRB / AERA:** An analysis of the Acts that govern these regulators shows that they are responsible for monitoring adherence to regulatory guidelines, monitoring performance and enforcement of commission decisions. It is thus recommended that these regulators consider the creation of an Investigation / Enforcement function. For example, as per Section 128 of the Electricity Act 2003, the commission is empowered to direct an investigation against any licensee or generating company that has failed to comply with any of the conditions of licence or has failed to comply with any of the provisions of this Act or rules or regulations made thereunder. Similarly, under Chapter V of the PNGRB Act, the board has powers to carry out investigations against complaints received.
4. **Policy formulation & Market Economics Development in CERC / PNGRB:** As these regulators are full fledged sector regulators, these two functions are critical to be present in their respective structures
5. The functions of Knowledge Management & Capacity Building need to be created in all the regulators except Competition Commission of India where it is already in place.
6. **Competition Commission of India:** The existing structure of the Competition Commission of India is fairly well modelled on the lines of the structure of FERC and SEBI and thus no alterations in the structure are felt to be necessary. No specific recommendations have been made in this regard.
7. **Observation on the level of Secretary vs Chiefs / Advisors:** It was observed that the Secretary to the regulator, who is responsible for the overall functioning of the regulator organisation, is at the same pay scale as the Chief / Advisor who is a functional head. There could be certain reporting concerns as these functional heads may not administratively report to the Secretary and are at the same pay scale. The regulators may be required to address this concern by either having the Secretary at a different pay scale or by having differential perquisites / benefits or by having an order issued to the effect that the Secretary will have administrative oversight of all the functional heads.
8. The scope of this assignment is to “*suggest modifications in organisation structure, if existing structure found inadequate to carry out mandate*”. Accordingly, the functions required have been built in the structure recommendations mentioned above. While the structural requirements have been identified to carry out the mandate effectively, each function in the structure may require different number of personnel in different grades and skill sets. This needs to be taken up as an independent manpower study based on the quantum of work to be carried out by each regulator.

4 Compensation

4.1 Deloitte's Approach

The scope of work for the said module and Deloitte's approach to the module has been illustrated in the table below:



In order to ensure consistency while comparing compensation packages, the compensation package for regulatory staff has been split into 3 components as listed below:

1. **Pay** – This includes:
 - a. Basic Pay (as per the Pay Scale / Pay Band + Grade Pay)
 - b. Any other Pay which is entitled for Dearness Allowance and Terminal Benefits
 - c. Dearness Allowance (DA) at the prevalent level
 - d. House Rent Allowance (HRA) or any other form of house allowance / lease in lieu of HRA
2. **Allowances** – This includes all allowances that are typically quantifiable on an annual basis and includes allowances that are paid:
 - a. On actuals or
 - b. On actuals subject to an upper limit or
 - c. In cash if not claimed through reimbursement by the individual
3. **Terminal Benefits** – This includes Employer contribution to Provident Fund (PF) and Gratuity calculated at 16.81% of (Pay + DA)

4.2 'As – Is' Understanding & Observations

Currently, all the member regulators of FOIR are being paid as per the Pay Scales prescribed by the 6th Pay Commission applicable to Central Government Employees.

The table in the following page shows the comparison of posts in the same pay-scale across regulators for the officer level. It is to be noted that this comparison is to show only the equivalent designations at the same pay scale across FoIR member regulators. This comparison may not be used to compare the equivalence of positions based on educational qualifications and experience requirements for various positions as these requirements vary within and across regulators.

Sl.	Pay Band	Pay Scale	Grade Pay	AERA	CCI	CERC	PNGRB	TAMP
1	PB 4	37400 - 67000	10000	Secretary	Secretary Advisor (Financial Analysis)	Secretary Chief (Engineering) Chief (Finance) Chief (Legal) Chief (Eco)	Secretary Advisor (Commercial) Advisor (Infra) Advisor (Legal) Advisor (Distribution)	Secretary
2	PB 4	37400 - 67000	8900		Director (Financial Analysis) Director (Eco) Director (Law)			
3	PB 4	37400 - 67000	8700	Director	Joint Director (Eco) Joint Director (Law) Joint Director (IT)	Jt. Chief (Engineering) Jt. Chief (Finance) Jt. Chief (Legal) Jt. Chief (Eco)		Director (Cost)
4	PB 3	15600 - 39100	7600	Deputy Chief Sr. PPS	Deputy Director (F&A) Deputy Director (Eco) Deputy Director (Law) Deputy Director (IT) Deputy Director (Corp. Services) Sr. PPS	Dy. Chief (Engineering) Dy. Chief (Fin) Dy. Chief (Eco) Dy. Chief (Env) Dy. Chief (C&PR) Dy. Chief (RA) Dy. Chief (MIS) Integrated Financial Advisor		
5	PB 3	15600 - 39100	6600	Under Secretary PPS	Asst. Director (F&A) Asst. Director (IT) Asst. Director (Corp. Services) Asst. Director (Lib) PPS	Asst. Chief (Engineering) Asst. Chief (Fin) Asst. Chief (Ac) Asst. Chief (Eco) Asst. Chief (P&A) Asst. Chief (MIS) Bench Officer Asst. Secretary (FoR) PPS	Dy. Director (Legal)	Dy. Director (Cost) PPS
6	PB 3	15600 - 39100	5400		Office Manager (F&A) Office Manager (Corp. Services) Office Manager (Lib)	Pay & Ac. Officer Sr. Ac Officer	Asst. Director (Infra) Bench Officer	Asst. Director (Cost) Asst. Director (Finance) Asst. Director (Tariff) Admin. Officer

The existing Compensation Package per Annum (sum of Pay, Allowances and Terminal Benefits) of Regulators is as estimated below:

If HRA is considered:

Pay Scales			Pay (if HRA is used)			Allowances			Terminal Benefits			Total per Annum		
Pay Band	Grade Pay		Start	Mid	End	Start	Mid	End	Start	Mid	End	Start	Mid	End
PB 4	37400 - 67000	10,000	1,109,160	1,455,480	1,801,800	173,153	179,258	185,363	157,765	207,025	256,285	1,440,078	1,841,763	2,243,448
PB 4	37400 - 67000	8,700	1,078,740	1,425,060	1,771,380	97,376	103,481	109,586	153,438	202,698	251,958	1,329,555	1,731,240	2,132,925
PB 3	15600 - 39100	7,600	542,880	817,830	1,092,780	87,930	92,777	97,624	77,218	116,327	155,435	708,028	1,026,934	1,345,839
PB 3	15600 - 39100	6,600	519,480	794,430	1,069,380	87,518	92,364	97,211	73,890	112,999	152,107	680,888	999,793	1,318,698
PB 3	15600 - 39100	5,400	491,400	766,350	1,041,300	87,023	91,869	96,716	69,896	109,004	148,113	648,318	967,224	1,286,129

If Leased Accommodation is considered:

Pay Scales			Pay (If Lease is used)			Allowances			Terminal Benefits			Total per Annum		
Pay Band	Grade Pay		Start	Mid	End	Start	Mid	End	Start	Mid	End	Start	Mid	End
PB 4	37400 - 67000	10,000	1,222,920	1,604,760	1,986,600	173,153	179,258	185,363	157,765	207,025	256,285	1,553,838	1,991,043	2,428,248
PB 4	37400 - 67000	8,700	1,189,380	1,571,220	1,953,060	97,376	103,481	109,586	153,438	202,698	251,958	1,440,195	1,877,400	2,314,605
PB 3	15600 - 39100	7,600	598,560	901,710	1,204,860	87,930	92,777	97,624	77,218	116,327	155,435	763,708	1,110,814	1,457,919
PB 3	15600 - 39100	6,600	572,760	875,910	1,179,060	87,518	92,364	97,211	73,890	112,999	152,107	734,168	1,081,273	1,428,378
PB 3	15600 - 39100	5,400	541,800	844,950	1,148,100	87,023	91,869	96,716	69,896	109,004	148,113	698,718	1,045,824	1,392,929

Assumptions:

- Pay:** Includes Basic Pay, DA and HRA / Lease Accommodation. DA is taken as 65% of Basic Pay (as of Dec 2011), HRA is taken as 30% of Basic Pay, Leased Accommodation is taken as 60% of Basic Pay (entitlement) - 10% Rent Recovery, i.e. 50% of Basic pay
- Allowances:** Includes LTC, Children Education Allowance and Transport Allowance. As LTC is paid on Actuals, it is assumed as 1 month Basic Pay + DA claimed once in 4 years.; Child Edu. Allowance is assumed as Rs. 1250 per child per month assuming an average of 1 child; Transport Allowance for Secretary is assumed as encashable amount of Rs. 7000 per month + DA (in lieu of office car with driver) and for others Rs 3200 per month + DA
- Terminal Benefits:** PF & Gratuity together are taken at 16.81% (12 + 4.81) of Basic Pay + DA

Our Observations

As regulators, it was felt that it is important that the quality and caliber of talent in the regulator should be on par, if not better, than the regulated entities. One of the key reasons cited by the regulators that have impeded their ability to attract quality talent is lesser compensation as compared to the regulated entities. Thus, employees do not consider a stint with the regulator as a feasible option as no incentive is provided for their employment with the regulator.

Considering the above issues, the Deloitte team identified that the regulated entities are either Central Public Sector Enterprises (such as NTPC, PGCIL, Indianoil, BPCL, Airport Authority of India Limited etc) or private companies.

In order to address the above issues, within the framework of the Central Government rules and regulations, it was felt that the regulators need to provide a compensation that is at least equal to the highest paying Central Public Sector Enterprises (CPSEs) as they may not have the flexibility to pay compensation in line with private sector companies.

Alternatively, if we consider regulators across the country, the chairman and members of all the regulators – financial & non financial sectors are paid on par. The regulators may therefore consider benchmarking with other regulators such as SEBI / PFRDA / IRDA as a point of reference.

In this context, the highest paying CPSEs which are regulated entities are the schedule 'A' CPSE which includes the Maharatnas and Navratnas. The compensation paid by the financial regulator – SEBI, was also found to be higher than that paid by the FOIR member regulators and on par with the compensation paid by the Reserve Bank of India, the country's apex bank.

4.3 Inputs from similar Organisations & Learnings

For the purpose of benchmarking, the compensation packages of Schedule A CPSEs and SEBI were considered.

In case of Schedule A CPSEs, while the entry level for Engineers (considered to be Undergraduate level course) is at the Pay Scale of 24900 – 50500 and the entry level of management graduates from premier institutes (like IIMs, considered to be a Post Graduate level Course) is at a Pay Scale level higher than that depending on market conditions.

Typically, the Government nominated Director on the Board of a CPSE is of the level of Joint Secretary in the Government of India (which is of the rank of the Secretary to the Regulatory Commission) and therefore the Director Level in CPSE is taken as the highest level of Pay Scale to be considered i.e. 75000 – 100000.

It is to also be noted that CPSE employees are eligible for a Performance Related Pay (PRP) that varies from 40% to 200% of Basic pay and has not been considered as part of the total compensation package computation.

In case of SEBI, the Entry level is at the scales of Grade A (Pay Scale of 17100 - 1000 (11) - 28100 - EB - 1000 (4) - 32100 - 1100 (1) - 33200 (17 years)) and Grade B (Pay Scale of 21000 - 1000 (9) - 30000 - EB - 1000 (2) - 32000 - 1100 (4) - 36400 (16 years)).

Since all the regulators and SEBI, carry a position of Chairman and Members at the same Pay, the highest level in the organisation of the FOIR member regulators, i.e. the Secretary (Pay Scale of 37400 – 67000 GP 10000), can be considered as equivalent to the highest level in the organisation of SEBI, i.e. the Executive Director (Pay Scale of 75100 - 2000 (2) - 79100 (3 years)).

All pay scales in the above range have been considered for benchmarking.

The existing Compensation Package per Annum (sum of Pay, Allowances and Terminal Benefits) of CPSEs is as estimated below:

If HRA is considered:

Pay Scales			Pay (if HRA is used)			Allowances			Terminal Benefits			Total per Annum (HRA)		
Scale Start	Scale Mid	Scale End	Start	Mid	End	Start	Mid	End	Start	Mid	End	Start	Mid	End
75,000	87,500	100,000	1,680,300	1,960,350	2,240,400	554,628	625,128	695,628	237,071	276,583	316,095	2,471,999	2,862,061	3,252,123
62,000	71,000	80,000	1,389,048	1,590,684	1,792,320	427,680	478,440	529,200	195,979	224,428	252,876	2,012,707	2,293,552	2,574,396
51,300	62,150	73,000	1,149,325	1,392,409	1,635,492	367,332	428,526	489,720	162,157	196,453	230,750	1,678,814	2,017,388	2,355,962
43,200	54,600	66,000	967,853	1,223,258	1,478,664	321,648	385,944	450,240	136,553	172,588	208,623	1,426,054	1,781,790	2,137,527
36,600	49,300	62,000	819,986	1,104,517	1,389,048	284,424	356,052	427,680	115,691	155,835	195,979	1,220,101	1,616,404	2,012,707
32,900	45,450	58,000	737,092	1,018,262	1,299,432	263,556	334,338	405,120	103,995	143,665	183,335	1,104,643	1,496,265	1,887,887
29,100	41,800	54,500	651,956	936,487	1,221,018	242,124	313,752	385,380	91,984	132,128	172,272	986,064	1,382,367	1,778,670
24,900	37,700	50,500	557,860	844,631	1,131,402	218,436	290,628	362,820	78,708	119,168	159,628	855,003	1,254,427	1,653,850

If Leased Accommodation is considered:

Pay Scales			Pay (if Lease is used)			Allowances			Terminal Benefits			Total per Annum (Lease)		
Scale Start	Scale Mid	Scale End	Start	Mid	End	Start	Mid	End	Start	Mid	End	Start	Mid	End
75,000	87,500	100,000	1,809,300	2,044,350	2,279,400	554,628	625,128	695,628	237,071	276,583	316,095	2,600,999	2,946,061	3,291,123
62,000	71,000	80,000	1,564,848	1,734,084	1,903,320	427,680	478,440	529,200	195,979	224,428	252,876	2,188,507	2,436,952	2,685,396
51,300	62,150	73,000	1,325,845	1,529,869	1,733,892	367,332	428,526	489,720	162,157	196,453	230,750	1,855,334	2,154,848	2,454,362
43,200	54,600	66,000	1,135,733	1,350,098	1,564,464	321,648	385,944	450,240	136,553	172,588	208,623	1,593,934	1,908,630	2,223,327
36,600	49,300	62,000	996,866	1,235,677	1,474,488	284,424	356,052	427,680	115,691	155,835	195,979	1,396,981	1,747,564	2,098,147
32,900	45,450	58,000	905,692	1,141,682	1,377,672	263,556	334,338	405,120	103,995	143,665	183,335	1,273,243	1,619,685	1,966,127
29,100	41,800	54,500	815,396	1,054,207	1,293,018	242,124	313,752	385,380	91,984	132,128	172,272	1,149,504	1,500,087	1,850,670
24,900	37,700	50,500	719,620	960,311	1,201,002	218,436	290,628	362,820	78,708	119,168	159,628	1,016,763	1,370,107	1,723,450

Assumptions:

1. **Pay:** Includes Basic Pay, DA and HRA / Lease Accommodation. DA is taken as 56.7% of Basic Pay (as of Mar 2012), HRA is taken as 30% of Basic Pay, Leased Accommodation is as per values applicable to NTPC
2. **Allowances:** This is based on cafeteria approach applicable to CPSEs at 47% of Basic Pay; Directors are entitled for an officer car with driver. However, for the purpose of computation, we have assumed as encashable amount of Rs. 7000 per month + DA (similar to secretary in regulators) and for other levels as 100 litres of petrol reimbursable. **THIS DOES NOT INCLUDE PRP.**
3. **Terminal Benefits:** PF & Gratuity together are taken at 16.81% (12 + 4.81) of Basic Pay + DA

The existing Compensation Package per Annum (sum of Pay, Allowances and Terminal Benefits) of SEBI is as estimated below:

If HRA is considered:

Grade	Pay Scales			Pay (if HRA is used)			Allowances	Terminal Benefits			Total per Annum (HRA)		
	Scale Start	Scale Mid	Scale End	Start	Mid	End		Start	Mid	End	Start	Mid	End
ED	75,100	77,100	79,100	1,762,971	1,804,191	1,845,411	265,500	283,100	289,676	296,252	2,311,571	2,359,367	2,407,163
Grade F	60,600	63,800	67,000	1,464,126	1,530,078	1,596,030	131,400	235,423	245,945	256,467	1,830,949	1,907,423	1,983,897
Grade E	42,300	47,150	52,000	1,222,416	1,322,375	1,422,333	131,400	198,022	213,969	229,916	1,551,838	1,667,743	1,783,649
Grade D	39,850	43,000	46,150	1,066,787	1,131,708	1,196,630	131,400	172,293	182,650	193,008	1,370,480	1,445,758	1,521,037
Grade C	28,350	34,875	41,400	777,938	912,418	1,046,898	131,400	125,767	147,222	168,676	1,035,105	1,191,040	1,346,974
Grade B	21,000	28,700	36,400	582,444	741,141	899,838	131,400	94,202	119,520	144,838	808,046	992,061	1,176,076
Grade A	17,100	25,150	33,200	487,395	653,306	819,216	131,400	78,913	105,382	131,850	697,708	890,087	1,082,466

If Housing Allowance is considered:

Grade	Pay Scales			Pay (If House Allowance used)			Allowances	Terminal Benefits			Total per Annum (House All.)		
	Scale Start	Scale Mid	Scale End	Start	Mid	End		Start	Mid	End	Start	Mid	End
ED	75,100	77,100	79,100	2,224,116	2,263,236	2,302,356	265,500	283,100	289,676	296,252	2,772,716	2,818,412	2,864,108
Grade F	60,600	63,800	67,000	1,940,496	2,003,088	2,065,680	131,400	235,423	245,945	256,467	2,307,319	2,380,433	2,453,547
Grade E	42,300	47,150	52,000	1,658,001	1,752,867	1,847,733	131,400	198,022	213,969	229,916	1,987,423	2,098,236	2,209,049
Grade D	39,850	43,000	46,150	1,444,944	1,506,558	1,568,172	131,400	172,293	182,650	193,008	1,748,637	1,820,608	1,892,580
Grade C	28,350	34,875	41,400	1,108,170	1,235,799	1,363,428	131,400	125,767	147,222	168,676	1,365,337	1,514,421	1,663,504
Grade B	21,000	28,700	36,400	860,394	1,011,006	1,161,618	131,400	94,202	119,520	144,838	1,085,996	1,261,926	1,437,856
Grade A	17,100	25,150	33,200	709,440	866,898	1,024,356	131,400	78,913	105,382	131,850	919,753	1,103,680	1,287,606

Assumptions:

- Pay:** Includes Basic Pay, Family Allowance, Local Allowance, Spl Comp. Allowance, Spl Allowance, Grade Allowance, DA and HRA / Housing Allowance. DA is taken as 63% of all Pay components (as of Dec 2011), HRA is taken as 8.75% of Basic Pay
- Allowances:** Includes LTC and Transport Allowance. LTC is taken as encashable for 2500 kms in Rajdhani Express 2 AC for 4 family members once in two years. Transport Allowance is assumed for ED level is 225 litres of petrol + 1500 (maintenance) + 5000 (for driver) per month and 130 litres of petrol per month for others
- Terminal Benefits:** PF & Gratuity together are taken at 16.81% (12 + 4.81) of all Pay components (except HRA / Housing Allowance) + DA

Learnings

It can be observed that the CPSEs and SEBI have a total compensation package (Pay + Allowances + Terminal Benefits) more than that of the regulators if we consider levels from the Entry level to the top most level in the Organisation.

It can also be observed that while the total packages of CPSEs appear to be greater than that of SEBI, when we analyse the components, it is evident that SEBI has a larger “Pay” component while CPSEs have a larger “Allowances” component. It may be noted that CPSE employees are also eligible for a Performance Related Pay that varies from 40% to 200% of Basic pay which has not been factored in the above computation.

4.4 Recommendations

With the assumption that regulators are government entities, their compensation package needs to be aligned to Government Institutions.

It was felt that the regulators need to provide a compensation that is at least equal to the highest paying Central Public Sector Enterprises (CPSEs) as they may not have the flexibility to pay compensation in line with private sector companies.

Alternatively, if we consider regulators across the country, the chairman and members of all the regulators – financial & non financial sectors are paid on par. The regulators may therefore consider benchmarking with other regulators such as SEBI / PFRDA / IRDA as a point of reference.

In this context, the highest paying CPSEs which are regulated entities are the schedule ‘A’ CPSE which includes the Maharatnas and Navratnas. The compensation paid by the financial regulator – SEBI, was also found to be higher than that paid by the FOIR member regulators and on par with the compensation paid by the Reserve Bank of India, the country’s apex bank with better housing allowance..

Based on an analysis of the pay availed of by employees of SEBI and CPSEs, it is recommended that the regulators adopt CPSE pay scales, allowances and benefits. However, as the regulators operate on fee based system and do not generate profit (and thus profit linked performance payment is not relevant), the performance of employees regulators can be rewarded through additional increments based on Performance. (Please refer to the note on “Rewards based on Objective Performance Appraisal” in the following chapter on “Recruitment, Promotions and Career Growth”).

The following section details the rationale for adopting the CPSE and SEBI pay scales for various levels in the regulator.

Option 1: Adoption of CPSE Pay Structure

Typically, the Government nominated Director on the Board of CPSE is of the Joint Secretary in the Government of India (which is the rank of the Secretary to the Regulatory Commission) and therefore the Director Level in Schedule ‘A’ CPSE is taken as the highest level of Pay Scale to be considered i.e. 75000 – 100000. This is mapped to the level of Secretary to the Commission, CPSE in terms of Pay Scale i.e. a Pay Scale of 37400 – 67000 GP 10000.

In order to attract good talent at the Induction level (Entry Level), it was felt that the regulators should be able to attract fresh talent from premier institutes in the country for various disciplines (such as IIMs / FMS etc in case Management / Finance, National Law School in case of Law, Delhi School of Economics in case of Economics, IITs / BITS and NITs in case of Engineering). In general, the median

CTC offered to these students on campus ranges from about Rs. 11 to 12 Lacs. The scale of 29100 – 54500 translates to a total compensation package of Rs. 11.5 lacs at the start of the scale.

It may also be noted that currently, the Navratna / Maharatna CPSEs take their Entry level management and engineering graduates / post graduates at the scales of 29100 – 54500 and 24900 – 50500 respectively depending on the market conditions.

It is therefore proposed that the Induction level to be considered for the regulators while adopting CPSE pay scales needs to be at the scale of 29100 – 54500 for its core functions where it requires qualified professionals from premier institutes. For its support functions and for research officers who support the core functions, which have been proposed to be taken partially on deputation basis and partially through Direct Recruitment, the regulators may adopt the pay scale of 16400 – 40500 at the entry level.

Based on the above rationale of mapping the top level and entry level pay scales, the scales for the levels in between can also be mapped.

This is carried out with the following assumptions:

1. Typically, the cumulative sum of the qualifying years of service required in the Central Government Services to move upward from Officer to the level of Joint Secretary (Govt. of India) is 16 years.
2. Typically, There are 3 levels of pay scales in between the entry level (GP 5400) and the Joint Secretary (Secretary in the Commission) which are as below:
 - a. Under Secretary at GP 6600 requiring a minimum of 4 years of qualifying services
 - b. Deputy Secretary at GP 7600 requiring a minimum of cumulative 9 years of qualifying services
 - c. Director at GP 8700 requiring a minimum of cumulative 13 years of qualifying services

Considering the above, it was felt that that the levels in the regulators need to be mapped to CPSE scales in the following manner:

Vacancy Band	Regulator Levels	Years of qualifying service in current post	Cumulative Years of qualifying Service	CPSE Scales
Band 4	Chief / Secretary (JS in Gol)	3 years	16 years	75000 – 100000
Band 3	Jt. Chief (Director in Gol)	5 years	13 years	62000 – 80000
Band 2	Dy. Chief with 2 years (Senior Scale)			51300 – 73000
	Dy Chief (DS in Gol)	5 years	8 years	43200 – 66000
Band 1	Asst. Chief with 3 years (Senior Scale)			36600 – 62000
	Asst. Chief (US in Gol)	3 years	3 years	32900 – 58000
	Induction level for Officers (core functions)		Induction level	29100 – 54500
Band 0	Entry level for support functions and research officers for core functions on deputation / Direct Recruitment			16400 – 40500

This table is further explained in detail in the Chapter on “Recruitment, Promotions & Career Growth”

Option 2: Adoption of SEBI Pay Structure

Since all the regulators and SEBI, carry a position of Chairman and Members at the same Pay, the highest level in the organisation of the FOIR member regulators, i.e. the Secretary (Pay Scale of 37400 – 67000 GP 10000), can be considered as equivalent to the highest level in the organisation of SEBI, i.e. the Executive Director (Pay Scale of 75100 - 2000 (2) - 79100 (3 years)).

In order to attract good talent at the Induction level (Entry Level), it was felt that the regulators should be able to attract fresh talent from premier institutes in the country for various disciplines (such as IIMs / FMS etc in case Management / Finance, National Law School in case of Law, Delhi School of Economics in case of Economics, IITs / BITS and NITs in case of Engineering). In general, the median CTC offered to these students on campus ranges from about Rs. 11 to 12 Lacs. The scale of Grade B (Pay Scale of 21000 - 1000 (9) - 30000 - EB - 1000 (2) - 32000 - 1100 (4) - 36400 (16 years) translates to a total compensation package of Rs. 11 lacs at the start of the scale.

It may also be noted that currently, SEBI takes its Entry level at the scales of Grade A (Pay Scale of 17100 - 1000 (11) - 28100 - EB - 1000 (4) - 32100 - 1100 (1) - 33200 (17 years)) and Grade B (Pay Scale of 21000 - 1000 (9) - 30000 - EB - 1000 (2) - 32000 - 1100 (4) - 36400 (16 years)).

It is therefore proposed that the Induction level to be considered for the regulators while adopting SEBI pay scales needs to be at the scale of Grade B for its core functions where it requires qualified professionals from premier institutes. For its support functions and for research officers who support the core functions, which have been proposed to be taken partially on deputation basis and partially through Direct Recruitment, the regulators may adopt the scale of Grade A at the entry level.

Using the same rationale applied for Option 1, it was felt that that the levels in the regulators need to be mapped to CPSE scales in the following manner:

Vacancy Band	Regulator Levels	Years of qualifying service in current post	Cumulative Years of qualifying Service	SEBI Grades
Band 4	Chief / Secretary (JS in Gol)	3 years	16 years	Executive Director
Band 3	Jt. Chief (Director in Gol)	5 years	13 years	Grade F
Band 2	Dy Chief (DS in Gol)	5 years	8 years	Grade E
Band 1	Asst. Chief with 3 years (Time Scale)			Grade D
	Asst. Chief (US in Gol)	3 years	3 years	Grade C
	Induction level for Officers (core functions)		Induction level	Grade B
Band 0	Entry level for support functions and research officers for core functions on deputation / Direct Recruitment			Grade A

This table is further explained in detail in the Chapter on “Recruitment, Promotions & Career Growth”.

It may be noted that CCI alone currently has posts in both levels – Grade Pay 8700 and Grade Pay 8900. As the recommendations have been made for a standardised pay scale based on the scales of all regulators which carry only the Grade Pay 8700 scale, it is proposed that when the regulators adopt the CPSE or the SEBI Pay Scales, CCI can consider giving additional increments for those incumbents under the Grade Pay of 8900.

Other Benefits

1. **Medical Benefits:** CPSE allows unlimited medical for OPD towards consultation fee and medicines. For hospitalisation treatment, CPSE employees are allowed treatment anywhere in any hospital. However, for the purpose of limiting the expenses, certain PSEs like NTPC have benchmarked the rates of Gangaram Hospital for all hospitalization treatment. CPSEs have also empanelled hospitals which include all major hospitals in capital cities where employees can take treatment as a cashless facility and reimbursement are on actuals. CPSE employees are also allowed post retiral medical facility for OPD and hospitalisation treatment
2. **Leave Encashment:** In CPSEs, The employees are allowed Leave encashment to the extent of 75% leave credited during the year which comes to around 22 days in a year
3. **Loan Advance in CPSEs:**
 - (a) Employees are allowed 90 months salary limited to 20 lacs – the employees are also allowed to take loan from outside and claim interest subsidy
 - (b) Conveyance loan – the employees are allowed to take car loan varying from 3 lacs at the entry level to 6.5 lac at senior level
 - (c) Children education loan – Upto 80% of the course fee or 10 lacs whichever is lower at a nominal interest rate (7.5%)

The indicative impact of the 2 options explained in terms of total compensation package as compared to the current Pay Scales are provided below:

If HRA is considered in all three cases: Regulators, CPSEs & SEBI (All figures in Rs. Lacs):

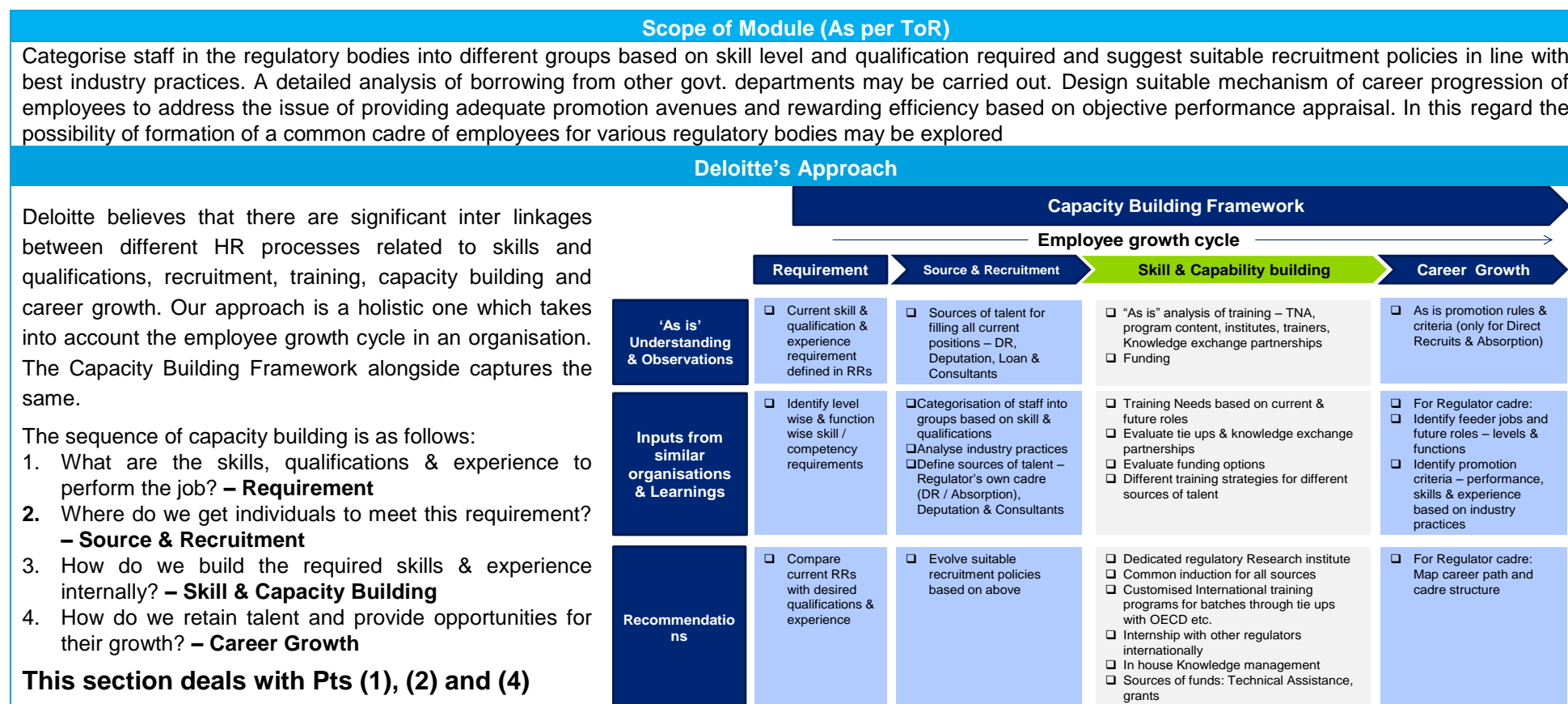
CPSEs						Regulators						SEBI						
Pay Scales			Compensation			Pay Scales			Compensation			Pay Scales				Compensation		
Scale Start	Scale Mid	Scale End	Start	Mid	End	Pay Band		Grade Pay	Start	Mid	End	Grade	Scale Start	Scale Mid	Scale End	Start	Mid	End
75,000	87,500	100,000	24.72	28.62	32.52	PB 4	37400 - 67000	10,000	14.40	18.42	22.43	ED	75,100	77,100	79,100	23.12	23.59	24.07
62,000	71,000	80,000	20.13	22.94	25.74	PB 4	37400 - 67000	8,700	13.30	17.31	21.33	Grade F	60,600	63,800	67,000	18.31	19.07	19.84
51,300	62,150	73,000	16.79	20.17	23.56	Senior Scale with 2 yrs										0.00	0.00	0.00
43,200	54,600	66,000	14.26	17.82	21.38	PB 3	15600 - 39100	7,600	7.08	10.27	13.46	Grade E	42,300	47,150	52,000	15.52	16.68	17.84
36,600	49,300	62,000	12.20	16.16	20.13	Senior Scale with 3 yrs						Grade D	39,850	43,000	46,150	13.70	14.46	15.21
32,900	45,450	58,000	11.05	14.96	18.88	PB 3	15600 - 39100	6,600	6.81	10.00	13.19	Grade C	28,350	34,875	41,400	10.35	11.91	13.47
29,100	41,800	54,500	9.86	13.82	17.79	PB 3	15600 - 39100	5,400	6.48	9.67	12.86	Grade B	21,000	28,700	36,400	8.08	9.92	11.76

If Leased Accommodation / Housing Allowance is considered in all three cases: Regulators, CPSEs & SEBI (All figures in Rs. Lacs):

CPSEs						Regulators						SEBI						
Pay Scales			Compensation			Pay Scales			Compensation			Pay Scales				Compensation		
Scale Start	Scale Mid	Scale End	Start	Mid	End	Pay Band		Grade Pay	Start	Mid	End	Grade	Scale Start	Scale Mid	Scale End	Start	Mid	End
75,000	87,500	100,000	26.01	29.46	32.91	PB 4	37400 - 67000	10,000	15.54	19.91	24.28	ED	75,100	77,100	79,100	27.73	28.18	28.64
62,000	71,000	80,000	21.89	24.37	26.85	PB 4	37400 - 67000	8,700	14.40	18.77	23.15	Grade F	60,600	63,800	67,000	23.07	23.80	24.54
51,300	62,150	73,000	18.55	21.55	24.54	Senior Scale with 2 yrs										0.00	0.00	0.00
43,200	54,600	66,000	15.94	19.09	22.23	PB 3	15600 - 39100	7,600	7.64	11.11	14.58	Grade E	42,300	47,150	52,000	19.87	20.98	22.09
36,600	49,300	62,000	13.97	17.48	20.98	Senior Scale with 3 yrs						Grade D	39,850	43,000	46,150	17.49	18.21	18.93
32,900	45,450	58,000	12.73	16.20	19.66	PB 3	15600 - 39100	6,600	7.34	10.81	14.28	Grade C	28,350	34,875	41,400	13.65	15.14	16.64
29,100	41,800	54,500	11.50	15.00	18.51	PB 3	15600 - 39100	5,400	6.99	10.46	13.93	Grade B	21,000	28,700	36,400	10.86	12.62	14.38

5 Recruitments, Promotions and Career Growth

5.1 Deloitte's Approach



5.2 'As – Is' Understanding & Observations

In this section, Deloitte analysed the current recruitment rules of each of the member regulators under the following aspects:

- Qualifications & experience requirements
- Mode of filling for each post – Direct Recruitment, Absorption, Deputation, fixed term contracts, individuals taken on loan basis etc.
- Promotion rules (in cases where the regulator has its own cadre)

The key features and our observations have been documented below:

Central Electricity Regulatory Commission	
'As is' Understanding	Observations
<ul style="list-style-type: none"> • Recruitment for all officer level posts in CERC are through deputation or on short term contract • Employees on deputation can opt for absorption after three years. As a result of this policy, incumbents often opt for absorption after completion of 3 years on deputation to be promoted to higher levels. • For support staff, posts are filled through Direct Recruitment • The regulator hires consultants for specific expert advice on matters such as power markets etc. • Inputs on specific legal matters / statistical matters etc. are obtained from the schools of excellence in India. 	<ul style="list-style-type: none"> • A key challenge while staffing key positions through deputation, especially positions where experiential knowledge plays a significant role (unlike academic knowledge), is that when the individual leaves, the knowledge leaves with them. The organisational memory is not preserved unless a robust knowledge management function is put in place. • As a regulator's total manpower is likely to remain small, it is difficult to provide career growth opportunities and avenues to meet the aspirational needs of the workforce when they are taken on Direct Recruitment. • As a result of factors such as number of vacancies, inability to attract talent of the required profile from the market and inability to provide career growth opportunities, CERC is compelled to fill its vacancies through appointment of consultants. • The electricity sector is the only sector comprising of state level regulators. The total manpower required for all electricity sector regulators is a sizeable requirement as compared to the other sector regulators. There is merit in CERC and SERCs collaborating for recruitment and talent attraction.
Petroleum & Natural Gas Regulatory Board	
'As is' Understanding	Observations
<ul style="list-style-type: none"> • All posts in PNGRB are filled through Deputation / on loan from other government / CPSE organizations. • Some positions such as OSD / AOSD / Joint Advisors are lent by Oil & gas PSUs, Planning Commission, GAIL etc. • Consultants are hired by PNGRB for specific expertise 	<ul style="list-style-type: none"> • During discussions, PNGRB indicated that they intend to keep the organisation compact and does not wish to build an organisation through direct recruitment. The organisation is likely to retain the mode of filling posts solely through deputation as it provides greater flexibility and mitigates the issue relating to inability to provide career growth opportunities. • Given the above situation, which is different from the case of CERC, it is so much more important for PNGRB to build a robust knowledge management function

Airport Economic Regulatory Authority	
'As is' Understanding	Observations
<ul style="list-style-type: none"> All officers are on deputation, either from government services or from the Airports Authority of India 	<ul style="list-style-type: none"> Since AERA is presently a tariff regulator, the number of officer level posts is limited – 16 Sanctioned / 12 Filled (excluding Sr PPS, PPS, PS & PA etc.) Given the manpower requirement of AERA and since Airport Economic regulation is a new development in India which implies there is a dearth of relevant talent in the market, it may not be feasible to create a separate cadre AERA has indicated that it intends to operate solely on deputation basis and it has no plans for direct recruitment
Tariff Authority of Major Ports	
'As is' Understanding	Observations
<ul style="list-style-type: none"> Higher Posts are filled through Promotion failing which by Deputation or Absorption and if both fail, through Direct Recruitment Entry level officer posts are filled through Deputation or Absorption failing which through Direct Recruitment 	<ul style="list-style-type: none"> Since TAMP is presently a tariff regulator, the number of officer level posts is limited – 6 Sanctioned / 6 Filled (excluding Sr PPS, PPS, PS & PA etc.) Therefore, the creation of separate cadre may not be feasible
Competition Commission of India	
'As is' Understanding	Observations
<ul style="list-style-type: none"> The posts at various levels are filled through a combination of the following methods: <ul style="list-style-type: none"> Deputation / Transfer / Short Term Contract Promotion and Direct Recruitment For some posts percentages have been allocated for filling posts on Deputation / Promotion / Direct Recruitment For other posts the 'failing which' clause has been used to accommodate multiple recruitment modes All posts have defined experience – nature & years The qualification requirements for Direct Recruitment at various levels is less than what is there in other government organisations – However, the cut off in the selection exam is kept at 70% minimum to ensure filtration. 	<ul style="list-style-type: none"> The growth for officers through Direct Recruitment is much faster than in a typical Central Government Service organisation. Given that the entrance exam for CCI is likely to be less competitive than for the Civil Service Exams, it is important to ensure the quality and credibility of the selection process to make sure that the calibre of talent is not compromised. Currently CCI has kept a cut off 70% marks as qualifying criteria These officers shall be paid high salaries and may remain with CCI for the length of their careers. This also ensures that CCI is able to attract quality talent as compared to other regulators in their current system of recruitment CCI also takes resources as consultants across varying levels of expertise. Some of these resources are primarily to bridge the manpower gap.

5.3 Inputs from similar Organisations & Learnings

Recruitment, Promotions and Career Growth in CPSEs

Typically, in CPSEs, specifically Schedule A CPSEs, the Induction level for fresh Engineers (considered to be Undergraduate level course) is at the Pay Scale of 24900 – 50500 and the entry level of fresh management graduates from premier institutes (like IIMs, considered to be a Post Graduate level Course) is at a Pay Scale level higher than that depending on market conditions.

Usually, all levels above that are filled through promotions. However, keeping in view the market requirements and the organisational requirements, recruitment at higher levels is possible through deputation, fixed term contracts or through Direct Recruitment. In such as cases, the organisation is prudent to ensure that the career opportunities of incumbents at lower levels are not affected.

Typically, promotions until E5 level are delinked from vacancies. The Promotions to the grade of E6, E7 and E8 will be subject to notified vacancies. There exist multiple grades and the grades are grouped into one or more bands. A band is defined as a grouping of grades in which the role and responsibilities of the position are similar. Changes in bands occur when there is a distinct change in the level of responsibilities of the position.

The cadre structure of a Schedule A CPSE is shown in the table below. Posts at the E2 Grade are filled through direct recruitment³. Other posts are filled through promotions after completion of fixed number of qualifying years of service in the feeder posts. In Central PSUs (Schedule A), individuals with a full time Bachelor of Engineering (BE / BTech / BSc (Engg)) / AMIE / MBA / Chartered Accountants with minimum 65% marks are hired at the E2 grade and are regularized into the E2A grade after training.

Grade	Pay Scale	Designation	Qualifying Service
E9	62000 – 80000	ED	
E8	51300 – 73000	GM	
E7	51300 – 73000	DGM	
E6	43200 – 66000	Chief Mgr	4
E5	36600 – 62000	Mgr	4
E4	32900 – 58000	Dy. Mgr	3
E3	29100 – 54500	Senior Engineer / Officer	3
E2A	24900 – 50500	Engineer / Officer	3

³ Central PSUs also recruit laterally at all levels if found to be necessary.

Recruitment, Promotions and Career Growth in SEBI

The entry level posts in SEBI are in Grade A and Grade B and are filled through direct recruitment. Other posts are filled through promotions / deputation after completion of fixed number of qualifying years of service in the feeder posts. The number of years of qualifying service in each grade prior to promotion is 3 years for all levels at SEBI. The educational qualifications for the various posts in Grade A and for the highest level posts are shown in the following table.

Educational qualifications for posts in Grade A:

General Stream	Legal Stream	Research Stream	Accounts Stream	IT Stream	Engineering Stream
Assistant Manager	Officer (Gr A) Legal	Officer (Gr A) Research	Account Assistant Grade A	Assistant Manager - Information Systems	Assistant Manager (Gr A) Civil
Master's Degree in Economics / Commerce / MBA / PG Degree or Diploma in Management / with 55% marks aggregate, CA / CFA / CS / ICWA	Bachelors' degree in Law with minimum 55% marks or LL.M.	Master's degree in Statistics / Economics / Commerce / MBA (Finance) / Econometrics with 55% marks. Doctorate in relevant topics will be preferred.	B.Com with 55% of marks. Minimum 3 years as accounts assistant preferably in a Financial Institution.	First class graduate in Engineering (electrical / electronics / ECE / IT / CSC) / First class Master's degree in Computer Application / First class graduate in any discipline with post graduate qualification (minimum two years duration) in computers / IT	Bachelor's degree in Civil Engineering with minimum 60% marks.

Educational Qualifications for Senior Posts (ED / Chief Economist Level) at SEBI:

Executive Director (General Stream)	Chief Economist
<p>(a) Promotion from Grade F with min 3 years of service</p> <p>(b) Deputation from Govt. (All India / CCS Group A), RBI, Banks, Financial Institutions with not less than 20 years of experience in dealing with problems relating to securities market or special knowledge / experience of law, investigation, Finance, Economic, Accountancy, Administration or any other relevant discipline.</p> <p>(c) Direct Recruitment: MBA / MMS with specialization in Finance / CA / CS/CFA / CWA / LLB / PG in Economics, Finance or relevant discipline with minimum of 20 years of post-qualification experience.</p> <p>(d) On Contract for 3 years.</p> <p>50% of total posts from internal candidates and 50% by deputation / contract and / or DR. In case of non-availability of candidates in any category, posts may be filled from other categories.</p>	<p>A 1st class PG degree in Economics or Finance. PhD preferred.</p> <p>Relevant experience of at least 20 years, including 5 years in a similar position in a leading organization in financial sector. Reasonable no. of publications in journals of repute. Good understanding of policy research in financial sector. Strong communication skills and Leadership competencies.</p>

5.4 Recommendations

It was felt that as the regulators are compact organisations in terms of manpower, it may not be possible to always provide adequate career opportunities for the individuals to grow. It must also be noted that typically, regulators are stable organisations based on their mandate unlike typical growing organisations where the manpower required increases with time.

While it was observed that while CCI and TAMP have provisions for Direct Recruitment at officer level posts, CERC fills its officer level posts only through Deputation or by Absorption. AERA and PNGRB indicated that they would prefer to operate through the deputation / loan / fixed term contract mode without taking on employees in their own cadre.

Proposed philosophy for filling of posts

Deloitte has classified the activities performed by the regulator into three categories, based on their criticality to the functioning of the regulator. These categories are listed below:

- a) **Core Functions:** Employees required to staff the core functions may be taken on the payroll of the regulator. The Induction level posts may be filled through “fresh recruits, failing which by Deputation”. The posts can also be filled by Research officers if they meet the promotion criteria. As far as possible, higher level posts may be filled through Promotions to provide career to employees. However, option of filling vacancies through direct recruitment / deputation/short term contract should remain open to meet the requirements arising from time to time.
- b) **Support Functions:** All the support functions such as Administration, Internal Finance (or internal Accounts) etc. may be taken on 50% on Direct Recruitment & 50% on deputation to ensure functional stability. Their entry level will be at lower level compared to specialist officers in core functions. IT / MIS can be a mix of deputation and outsourced staff (for technical support)
- c) **Research Officers for core functions:** The research staff may be taken on 50% direct recruitment and 50% through deputation/contract. Their entry level will be at lower level compared to specialist officers in core functions.
- d) **Support Staff:** All the positions of support staff (non executive cadre) may also be taken on deputation.

Educational qualifications and Experience requirements

In the table below, education qualifications for Induction level officer posts (professionals) for Core functions and Entry level officer posts for Support functions and corresponding Experience requirements for higher level posts in case of Direct Recruitment / Fixed Term Appointments is provided:

#	Function	Educational Qualifications	Experience Requirements
1	Knowledge Management	This function can be staffed through individuals from the other functions / specialities. The incumbent with experience in managing databases; knowledge of MS Access / Excel; organizing and classifying data / file management etc can be considered	
2	Policy Formulation	Master's degree in Economics / MBA (Finance) preferably from a premier institute such as Delhi School of Economics, IIMs, FMS etc.	Experience in policy reform recommendations for Commission considerations. Application of regulatory economics / forecasting / modelling; generic rulemakings and policy statements in support of the Commission's goals.

#	Function	Educational Qualifications	Experience Requirements
3	Market Economics & Development	Master's degree in Economics / MBA (Finance) preferably from a premier institute such as Delhi School of Economics, IIMs, FMS etc. PhD is preferred	Experience in developing market in the relevant sector; exposure to international market practices; identify new interventions / forecast issues in the market that restrict competition. Should have published reasonable number of papers in the given area of specialization in journals of international repute
4	Technical	Master's degree in Engineering in relevant discipline (Power system engineering / Petroleum Engineering) preferably from premier institute such as IITs / IISc.	Hands on experience in the processes of planning / operation / techno-economic appraisal / tariff / performance monitoring / design / design and development of performance standards in the given sector
5	Financial Analysis	MBA (Fin) / CA / Cost Acct. preferably with Engineering degree from premier institutes such as IIMs	Experience in Tariff formulation / Cost analysis / Financial Management preferably in a utility / organisation in the same sector.
6	Investigation / Enforcement & Consumer Affairs	MBA (Fin) / CA / Cost Acct. preferably with Engineering degree from premier institutes such as IIMs	Experience in handling regulatory issues; violations of laws and regulations by market participants, frame procedures relating to the above matters.
7	Legal	Bachelor's degree in Law preferably from premier institutes such as NLS and preferably with Masters degree	Experience in drafting regulations / statutes and legislations; dealing with Courts / Appellate Tribunals; settling disputes / arbitration; dealing with legal cases relating to sector
8	Internal Finance or Accounts	MBA (Fin) / Certified CA / Certified Cost Acct.	Experience of Central Government accounting procedure – procedure for budget and expenditure control, drawing and disbursement, receipts and payments, statutory recoveries, deposits etc. their accounting and financial control etc. Knowledge of Financial Rules / Regulations including GFR, Delegation of Financial Power Rules, FR / SR etc.
	Human Resources	MBA / PGDBM with HR specialization	Experience in secretariat functioning in the Central Government i.e. General Admin matters, Personnel Management etc.
	Information Technology & MIS	Bachelor's degree in Engineering	Working knowledge of networks, system configuration (assembly and repair); website management; preference may be given to individuals with knowledge of ERP systems. Experience in managing data flow between offices; creation of review mechanisms / review templates; working knowledge of MIS tools

#	Function	Educational Qualifications	Experience Requirements
			such a MS Projects etc.
9	Technical & Secretarial Support	MBA (Finance) / CA / CWA / Bachelor Degree in law	Experience in handling policy matters relating to Regulatory Commissions, thorough knowledge and understanding of the relevant sector, especially regulatory reforms.

The source of deputation for all posts shall be Central / State / UT / Civil Service / PSU / Universities / Recognized research institutes / Autonomous bodies unless otherwise specified.

Philosophy for promotions of incumbents

Given the limited organization size of all regulators, it may not be possible to provide for cadres for all functions in the regulators, particularly in non-core functions as the number of incumbents in these roles is limited. It is therefore recommended that the posts in the regulator as far as sanctioned strength / vacancies are considered, are grouped into bands. This implies that the sanctioned strength will be for a band and can give flexibility for incumbents to be given a time scale promotion within the band.

Within a band, employees may be given promotions, as per seniority and merit, without consideration of vacancies, as is the process in the PSUs. This is also in line with the flexible complementing scheme applicable to the scientific cadre in CSIR / DRDO etc and band based vacancy structure in SEBI. However, promotion from a lower band to a higher band, it will be subject to availability of vacancies.

The regulators create the following bands for growth of employees who are taken on the payroll of the regulator. The Bands are explained in the following page

Vacancy Band	Regulator Levels	Years of qualifying service in lower post	Cumulative Years of qualifying Service	CPSE Scales	SEBI Scales
Band 4	Chief / Secretary (JS in Gol)	3 years	16 years	75000 – 100000	Executive Director
Band 3	Jt. Chief (Director in Gol)	5 years	13 years	62000 – 80000	Grade F
Band 2	Dy. Chief with 2 years (Senior Scale)			51300 – 73000	
	Dy Chief (DS in Gol)	5 years	8 years	43200 – 66000	Grade E
Band 1	Asst. Chief with 3 years (Senior Scale)			36600 – 62000	Grade D
	Asst. Chief (US in Gol)	3 years	3 years	32900 – 58000	Grade C
	Induction level for Officers (core functions)		Induction level	29100 – 54500	Grade B
Band 0	Entry level for support functions and research officers for core functions on deputation / Direct Recruitment			16400 – 40500	Grade A

Band 0: This band will consist of the Entry level posts for Support functions and for the Research officers for the Core functions. This band will be below the Induction level for professionals from premier institutes. If the regulators chose to adopt the CPSE scales, this will be mapped to the 16400 – 40500 Pay Scale in CPSEs. The incumbents for this band will be eligible for promotion to the higher pay scale of 24900 – 50500 subject to meeting the merit and seniority criteria for promotion irrespective of vacancies and can also go on to be promoted to Band 1 subject to availability of vacancies.

Band 1: This band will consist of the Induction level for professionals from premier institutes (for Asst. Chief level posts) wherein within this band, they can be promoted irrespective of vacancies. This band comprises of three levels: An Induction level for freshers, followed by a promotion level to Asst. Chief in 3 years and an Asst. Chief Senior scale after completion of 3 years as Asst. Chief subject to fulfilling the promotion criteria.

Band 2: This band shall consist of Dy Chief level posts. Employees from Band 1 may be given promotions, subject to meeting the promotion criteria, strictly as per merit through selection, based on the availability of vacancies. After completion of 2 years in Band 2, subject to fulfilling promotion criteria, the employee can be promoted to Dy. Chief (senior scale)

Band 3: This band is for promotion from Dy. Chief to Jt Chief. Officers of the level of Dy. Chief who meet the promotion criteria and strictly based on merit can be promoted by selection to the post of Jt. Chief. There is no intra – band movement / senior scale in this band.

Band 3: This band is for promotion from Jt. Chief to Chief. Officers of the level of Jt. Chief who meet the promotion criteria and strictly based on merit can be promoted by selection to the post of Chief. There is no intra – band movement / senior scale in this band.

(Note: In case employees are found suitable for promotion but can't be promoted due to vacancy consideration, they may be considered for scale upgradation with no change in substantive post).

Option of common cadres across regulators

Deloitte also analysed options for the creation of a common cadre across regulators for some positions. This was also considered with a view to provide individuals exposure to multiple sectors.

Deloitte assessed possibilities to have common cadres in non sector specific / non technical areas such as **legal, financial analysis and economics**.

However, there were two distinct reasons to infer that common cadres may not be feasible.

1. How does one define the cadre controlling authority for the common cadres? Which organisation will own the responsibility and accountability of recruitments, promotions and transfers and the rotation of such a common cadre? – it was felt that this was an administrative hurdle to coordinate between multiple sector regulators.
2. It was felt that the regulators being compact specialised organisations, required a certain degree of niche expertise with a lot of nuances of the sector coming into play even in non technical areas such as Financial Analysis, legal and economics disciplines. It was more pronounced in the case of CCI which is not a sector regulator, but required significant knowledge related to monopolies and restrictive trade practices and economics from a market stand point.

Rewards based on Objective Performance Appraisal

As the regulators are not profit oriented organisations, there is no scope for linking organisation's commercial objectives to the individual goals as is the case with most organisations.

However, that does not absolve the regulator from meeting its performance requirements. In order to ensure that the regulator organisation carries out its functions effectively, it is important to identify objective performance parameters for various functions of the regulator and link it the regulators' overall performance. The same needs to be cascaded downwards to functional heads and individuals.

In order to motivate employees to perform, the regulator may consider rewarding them based on organisational, function level and individual level performance.

Conventionally, monetary rewards to individuals based on performance are based on the financial performance of the organisation as the source of funds for the rewards are from the profits of the organisation. This also ensures a direct correlation between rewards and performance.

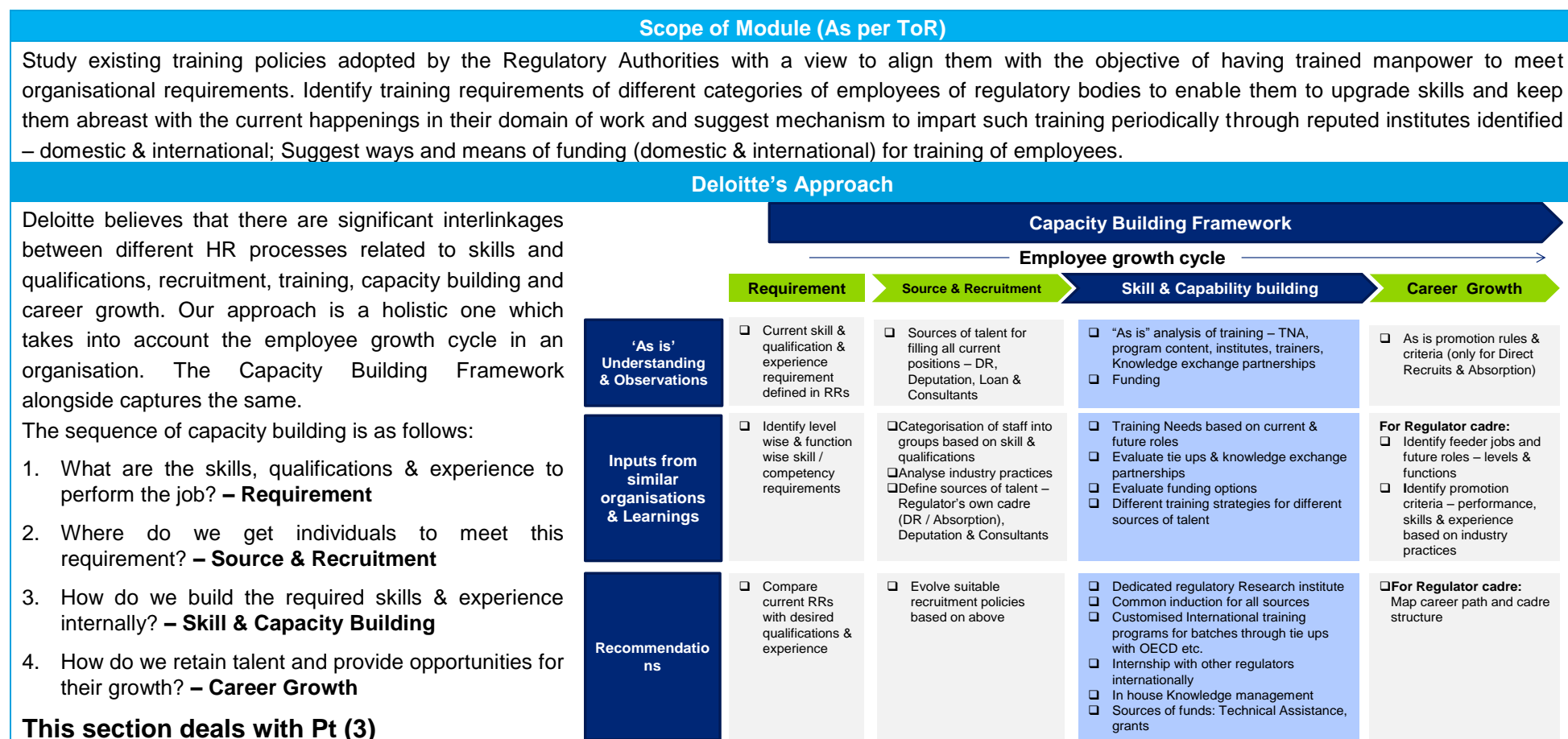
However, in the case of regulators whose motive is not to increase profits, the performance can be linked to operational excellence, expertise and quality of regulations. The rewards need not necessarily be in the form of an incentive or bonus (where it is a share of profit), but can be in the form of additional increments, faster promotion by meeting stringent performance criteria at the time of promotion consideration.

Independent of the form of reward, the same can only be implemented effectively, if the performance is measured objectively based on parameters identified with clear targets / goals set at the beginning of the performance cycle.

As the regulator has significant interface from various stakeholders and also operates internally with experts from multiple discipline, a 360 degree feedback mechanism on performance may be considered. In such a case, the performance of an individual is judged based on the feedback provided by external stakeholders and officers from other functions within the regulator with whom the incumbent under consideration has worked.

6 Skill Availability, Training & Development

6.1 Deloitte's Approach



6.2 'As – Is' Understanding & Observations

Deloitte has obtained details pertaining to the training programmes that the employees of the regulators have been sent for. It is seen however that employees are nominated for training programmes on a case to case basis and no systematic training interventions exist in the regulators.

Currently, with the exception of CCI, no other regulator has a systematic process of identification of the training needs of the organisation. Competition Commission of India carried out a one – time Training Needs Identification exercise which has been detailed in Annexure 5 of this document.

Given that regulation, in the various sectors in India, is a relatively recent phenomenon, it is imperative that systematic steps be taken towards developing competencies in the employees of the regulators. For example, the key technical and managerial competencies and skills for each level and function (post wise) needs to be identified based on the job responsibilities and procedures and subsequently, this should ideally form the basis for any training intervention.

Annexures 4 and Annexure 5 provide the details of all current training programs at the regulators and the training initiatives taken up by CCI respectively.

Deloitte's observations on the training interventions of the regulators have been discussed below:

CERC
<ul style="list-style-type: none"> As a result of the fact that training is conducted on a nomination basis and not on the requirements of each job (or post), we observe that workshops have been attended primarily by Engineering and Finance personnel In addition, many workshop participants are not with CERC now
PNGRB
<ul style="list-style-type: none"> All employees are sent for training to programmes in India and abroad Employees sent for training to US regulators under USTDA grant (Refer Note below) Funding for such programmes obtained as part of Technical Assistance provided for large infrastructure projects by Bi-lateral / Multilateral agencies However, training is still based on a subjective nomination basis and not on the basis of a systematic needs identification process built on the requirements of the job
TAMP
<ul style="list-style-type: none"> Employees have been sent for external training programmes over the last 5 years In most cases, employees in non core functions (Admin, Finance and IT) have been sent for training for courses in Admin, Finance and IT Under the SAFIR program, officers have been trained on areas related to Infrastructure sector regulations & reforms This, we observe is also a function of absence of a system around identification of training needs and matching the training programs with the needs of each function or level. As a result, the training has been skewed towards only certain functions.
AERA
<ul style="list-style-type: none"> As the organisation is nascent, capacity building workshops and content is provided by consultants Given that Airport Economic Regulations is new development in our country, there is very limited expertise available in the country to train the incumbents of AERA.

CCI

- CCI has carried out a comprehensive training needs identification exercise and built training programs based on the same.
- Capacity building workshops conducted covering all levels of employees. A structured induction training program is also in place
- Dedicated capacity building division to manage the training & competency building needs of the organisation, constantly partner with similar organisations for knowledge sharing interventions
- As the Capacity building team is staffed by employees with a functional background (such as law, economics etc), the ability to understand the needs of the organisation and to provide relevant training programs to address the same is significant.

6.3 Inputs from similar Organisations and Learnings

During discussions with SEBI, it was learned that the institute has its own training centre – National Institute of Securities Management (NISM). The NISM is a public trust, established by SEBI. It is an autonomous body governed by its Board of Governors.

Similarly, in the USA, the National Regulatory Research Institute functions under the aegis of NARUC (which is a body similar to FoIR) and caters to Capacity Building and Research needs of the regulators in the USA.

In India, the Accounting Research Foundation, registered as a section 25 company, caters to the capability and research needs of Institute of Chartered Accountants of India (ICAI).

The Forum of Indian Regulators may also consider the feasibility of setting up its own regulatory research and training institute.

A detailed note on the creation of a Regulatory Research Institute with inputs from other similar institutions has been shared with the FoIR. **This note has been provided as Annexure 7 to this report.**

It is to be noted that the note prepared focuses on the regulatory training requirements of the Electricity Regulators given their size and presence in the states in India.

6.4 Our Recommendations

With regard to training and skill building, it is recommended that all regulators adopt a structured approach to Training and Development. While in the short term, the regulators may continue the existing practice of hiring consultants for specific requirements, it is recommended that in the long run a structured approach is adopted to build internal capability and create an institutional memory in the form of effective knowledge management.

In addition to the setting up of a structured training and development mechanism, it is important that there is adequate availability of manpower to ensure that the nominated personnel are relieved for training. This is primarily in the context that there are a number of vacancies in the regulator organisations

We have proposed a multi – pronged approach to meet the training capacity building requirements of the regulators. We have broadly classified them under two parts as discussed below:

- A. Specific strategies to build capacity in the long run for the regulators. Each regulator may choose to adopt one or more of these strategies:
 - a. **Induction training (internal)**
 - b. **Promotion linked training**
 - c. **Tie ups with other regulators – Knowledge Exchange & Internships**
 - d. **Initiatives to encourage Capacity Building**
 - e. **Refresher training (internal or external)**
 - f. **Creation of Knowledge management function**
 - g. **Setting up a dedicated Capacity Building cell or division**
 - h. **Setting up a Regulatory research institute**
 - i. **Source of funding**
- B. Identification of suitable training program based on the needs of each regulator for various functions. This has two steps:
 - a. **Needs Assessment:** Identification of competencies (skills & knowledge) based on the regulatory functional groups
 - b. **Training Programs identified** for regulatory staff to meet the **above needs**
 - i. External Training to meet general needs of regulators
 - ii. External Training to meet specific needs of regulators

Each of the above interventions is discussed in detail in the following sections.

Induction Training

The regulators may also consider the creation of an induction training programme that introduces new recruits to the various functions of the regulator. These recruits include direct recruitments, employees on deputation etc. In CCI, a structured induction training programme has been created and is detailed in Annexure 6 for reference.

Promotion linked Training

Promotion linked training is in practice in CPSEs and in Government of India departments. While in CPSEs, employees are required to undergo two capsule courses for the middle management and senior management levels for promotion, in the civil services, the officers are required to undergo two long

duration training interventions before they reach the level of Joint Secretary. Such interventions are designed to sharpen their skills and equip them for taking up higher responsibilities.

In line with the above, the regulators may also consider introducing a mandatory training program linked to promotions.

Tie ups with other regulators – Knowledge Exchange & Internships

Regulators may also consider tie-ups with international regulators through which employees of Indian regulators undergo fixed stints internationally. These internships may be coordinated through mutual exchange programs. In addition sharing of international best practices could be tied up through bodies such as the Organisation for European Economic Cooperation (OECD). The members of FoIR, may also book slots with training institutes abroad for generic / customized training programmes that employees may be sent for annually.

Initiatives to encourage Capacity Building

In order to build capacity within the organisation, the regulators should encourage employees to become members of related professional bodies / associations / forums. If required, the membership fees for their enrollment may be reimbursed by the organisation.

Similarly, the regulator needs to encourage employees to undertake higher studies, pursue research and publish papers which are in the interest of the regulator and reimburse expenses such as course fee etc and allow them paid leave to pursue such interests.

Refresher Training

These courses shall need to be provided periodically to the employees to refresh their knowledge of the job. While creating training programmes, training requirements may be grouped into 2 categories – general and specific. All employees shall undergo training on the general requirements, while specific training shall be provided to the employees depending on their function

Creation of Knowledge Management function

To ensure the success of the training interventions and continuity of the same, the regulators shall need to provide increased focus on the creation of an in-house knowledge management function. This function shall be responsible for coordinating learning and development through various means such as blogs, discussion forums, weekly discussions etc. All knowledge created by the regulator shall need to be stored systematically and organized for easy use and retrieval. Systems and processes shall need to be established to ensure that information that resides locally with various functions is stored in a common repository.

Setting up a dedicated Capacity Building cell or division

Regulators may create an internal capacity building team that is staffed by technical incumbents. This team shall be responsible for providing qualitative inputs in the identification of training needs, developing course content and pedagogy etc. An example of the same may be drawn from CCI in which a dedicated capacity building team is comprised of individuals with a legal background.

Training requirements of the regulators may be segmented into two categories – induction level and refresher training courses.

Setting up a dedicated Regulatory Research Institute

The regulators could consider the option of setting up a dedicated institute to focus on research and capacity building for the regulators on the lines of National Regulatory Research Institute under NARUC in the USA.

This institute, apart from catering to the research needs of the regulators, needs to conduct regular training programs and workshops to keep the regulators updated on the latest and best practices internationally. The institute shall also take up consulting assignments for the regulators and also provide expert advice to the regulators on specific matters.

Deloitte has prepared a concept note on the creation of a dedicated Regulatory Research Institute for the regulators. For Further details, kindly refer **Annexure 6** of this document.

Sources of funds

For all international training programs, the route of funding through TA component by various multilateral funding agencies need to be explored, as is being done by PNGRB. In addition, employee exchange across regulators may be carried out, as is being followed by CCI

Needs Assessment

Deloitte has mapped the activities of the regulators to the various functions of a typical regulator. This mapping of activities to departments has been undertaken to determine the competencies that the incumbents in the departments require to possess to execute the job effectively. This mapping of activities to the functions of the regulators is shown in the following page.

In the table below, we have identified the specific knowledge and skill requirements for each regulator based on their mandate as per their respective acts against the typical regulator functions. This shall form the basis of the training programs for identification of training programs (discussed later in this section).

#	Regulator Functions	AERA	TAMP	CERC	PNGRB	CCI	
1	Market Economics and Development	<ul style="list-style-type: none"> Economic Analysis 	<ul style="list-style-type: none"> Maintain port database; port info bank Analyse shifts in cargo nature handled by Indian ports Economic forecasting / analysis based on above data⁴ 	<ul style="list-style-type: none"> Development of Power Markets Support Government on development of Policy / provide inputs Policy related matters such as National Electricity Policy (NEP), National Tariff Policy (NTP) and statutory advice Inputs in framing of new regulations, amendments to existing regulations Analyse the need for new regulatory initiatives in terms of changing power markets. 	<ul style="list-style-type: none"> Economic Analysis 	<ul style="list-style-type: none"> Principles of Competition economics Market definition and economic tools Techniques of data analysis (statistical packages, s/w) Outsourcing, evaluating & utilizing sectoral studies Collection of economic data – Competition Law perspective Statistical, mathematical & econometric tools 	
2	Policy Formulation						
3	Technical / Regulatory Affairs	<ul style="list-style-type: none"> Analysis of tariff proposals - Statistical Analysis (traffic forecasting); Accounting (Auditor certificate and Balance Sheets); Corporate Finance (Rate of Return, Cap Investments) Understanding O&M costs of airports 	<ul style="list-style-type: none"> Analysis of proposals – evaluate costs, machine and labour productivity, return on capital, rationalities, rental practices, alternatives, nature and content of work, technology stagnation Drafting of tariff order Port charges and costing 	<ul style="list-style-type: none"> Grid Code Analysis of petitions related to final tariff, provisional tariff, incentive, UI / RLDC, grant of license – transmission / trading, approval of power exchange, removal of difficulties pertaining to operating parameters, disputes in technical matters between beneficiaries and generators Analysis of petitions related to inter-state trading matters Calculation of escalation rate 	<ul style="list-style-type: none"> Analysis of proposals – costs, machine, land, labour, return on capital, technology etc. 	Anti-Trust	<ul style="list-style-type: none"> Analysis of information Analysis of DG report Order writing
						Combination	<ul style="list-style-type: none"> Law & economics of merger Premerger consultation Merger review (phase I, phase II, remedies) Valuation of enterprises Cross-border M&A
						DG Officer	<ul style="list-style-type: none"> Investigative tools Collection and analysis of evidence from primary and secondary sources Use of Information Technology in investigation Detection of bid rigging-international best practices Examination of witness

⁴ The 3 areas of work mentioned have been obtained from the 'Study on Staff Requirement 2009' undertaken by the Indian Maritime University.

#	Regulator Functions	AERA	TAMP	CERC	PNGRB	CCI	
							• Undertaking investigation-relevant laws
4	Financial Analysis			<ul style="list-style-type: none"> Thermal / Hydro / Transmission projects: Prudence check of Capital cost, admissible expenditure Determination of Tariff based on approved capital cost, additional expenditure etc. as per the regulations and truing up of tariff. 		<ul style="list-style-type: none"> Accounting standards – domestic & international Analysis of balance sheet 	
5	Investigation / Enforcement	<ul style="list-style-type: none"> Monitor airport performance against airport processes KPIs 	<ul style="list-style-type: none"> Launching punitive action that is due Conducting joint hearings Legal matters, litigation, court proceedings 	<ul style="list-style-type: none"> Monitoring of adherence to regulatory guidelines 	<ul style="list-style-type: none"> Monitoring of adherence to regulatory guidelines 	<ul style="list-style-type: none"> Investigative techniques & technology –General / mode specific (e.g. cyber) Analysis of Investigation report Financial Analysis 	
6	Legal	<ul style="list-style-type: none"> Legal matters, litigation, court proceedings 		<ul style="list-style-type: none"> Deal with petitions - Tariff, Grant of License, Incentive, unscheduled interchange, additional capitalisation and petitions concerning all inter-state matters; including appeal/ petitions filed in Supreme Court, High Court and APTEL. Validation of petitions Scrutinize appeals/ petitions, prepare grounds, provide legal inputs to Commission in discharge of judicial/ quasi-judicial matters including proceedings, petitions, pleadings and listing of cases, prepare records of proceedings (RoP). 	<ul style="list-style-type: none"> Launching punitive action that is due Conducting joint hearings Legal matters, litigation, court proceedings 	<ul style="list-style-type: none"> Legal principles relating to Competition Law Reading / Understanding of court decisions - Finding ratio Framing issues for legal determination (writing / seeking legal opinion) Recovery of penalty 	
7	Others			<ul style="list-style-type: none"> Preparation of Monthly Market Monitoring Report and updates. 		Advocacy	<ul style="list-style-type: none"> Tools used in Competition advocacy Managing the media Methods for developing interface with Government department, other sector regulators, industry associates

Training Programs identified to address the above needs

External Training to meet general needs of regulators

While each regulator has its own training needs, we also believe that there are certain common requirements as well. A specific training program that we have identified on Regulation is offered by the London School of Economics. The course explores areas such as Market Economics and Development, Policy Formulation, Technical / Regulatory Affairs and Financial Analysis. The details of this program is given below:

Name and Address of Contact Person	Miss Amanda Tinnams Tel: +44 (0)20 7955 7684 Fax: +44 (0)20 7955 7366 Email: a.tinnams@lse.ac.uk	
Course Duration	5 days	
Course Content / Syllabus	Day 1	Introduction Why regulate? What is good regulation? Explaining regulation How regulation fails - unintended effects Current issues in water regulation
	Day 2	Techniques of regulation (a): commands and alternatives Techniques of regulation (b): rules and standards The European dimension I The European dimension II Utilities regulation and Europe The re-regulation of electricity markets
	Day 3	Risk regulation regimes: what are they and why do they vary? Risk management Cost-benefit testing and regulation Working group session 1: cost-benefit testing Utilities regulation - regulatory goals and instruments Regulating monopolies - price capping
	Day 4	Measuring efficiency - benchmarking, yard sticking and quality Regulating access to networks Regulation in 'competitive' sectors - the cases of telecommunications and energy supply Regulation and competition law The future of utilities regulation
	Day 5	Working group session 2: accountability Regulatory competition Regulation and the judges Reforms and prospects Franchising
Website Link	http://www2.lse.ac.uk/study/executiveEducation/openenrolment/ShortCourseInRegulation/courseoutline.aspx	

External Training to meet specific needs of regulators

Based on the needs identified for each of the regulator functions in the earlier part of this chapter, the Deloitte team has identified specific training programs for each regulator. The same has been provided below. The details of each training program identified is given in **Annexure 6** of this report.

Training courses identified for AERA

#	Regulator Functions	Knowledge / Skill requirements	Training Programme (figure in brackets refers to Annexure 6)
1	Market Economics and Development	<ul style="list-style-type: none"> Economic Analysis 	<ul style="list-style-type: none"> Economics of Airport Management (#1) EU Regulations for Airports (#2) Airport user charges (#3) Air Traffic Forecasting (#4)
2	Policy Formulation		<ul style="list-style-type: none"> EU Regulations for Airports (#2) Airport user charges (#3)
3	Technical / Regulatory Affairs	<ul style="list-style-type: none"> Analysis of tariff proposals - Statistical Analysis (traffic forecasting); Accounting (Auditor certificate and Balance Sheets); Corporate Finance (Rate of Return, Cap Investments) Understanding O&M costs of airports 	<ul style="list-style-type: none"> Economics of Airport Management (#1) EU Regulations for Airports (#2) Airport user charges (#3) Air Traffic Forecasting (#4)
4	Financial Analysis		<ul style="list-style-type: none"> Airport user charges (# 4)
5	Investigation / Enforcement	<ul style="list-style-type: none"> Monitor airport performance against airport processes KPIs 	<ul style="list-style-type: none"> Economics of Airport Management (#1) EU Regulations for Airports (#2)
6	Legal	<ul style="list-style-type: none"> Legal matters, litigation, court proceedings 	<ul style="list-style-type: none"> Economics of Airport Management (#1)

In addition to the above, an additional training on **Project Management Fundamentals (#5 in Annexure 6)** has been added as it provides the trainees an understanding of the processes adopted during the construction of an airport and exposes participants to some aspects of running an airport.

The IATA also offers several training courses (**#6 in Annexure 6**) on topics such as Market economics and development, policy formulation, financial analysis and legal aspects.

In addition to the above identified training programmes, AERA could explore the option of a tie-up with the Civil Aviation Authority (UK) for specific training programmes, based on AERA's requirements. Other options such as internships, employee exchange etc. could also be explored.

With respect to Airport regulation, AERA could also look at options to tie up with the **Regulatory Policy Group UK** (<http://www.caa.co.uk/default.aspx?catid=5>). While no specific training programmes are available with this group, the group is responsible for provision of policy advice to the Government. The primary functions of the Regulatory Policy Group are:

- Economic regulation of the three designated airports in London and NATS
- Enforcement of consumer legislation - for example, to protect consumers in instances of flight cancellation and denied boarding, and protect people of reduced mobility when they fly
- Provision of expert policy and economic advice and analysis across CAA, to government and others on airports, airlines and air traffic services; and
- Collecting and analysing aviation statistics and survey responses

As may be seen from the functions above, AERA may tie up with the group for training on some activities presently being executed by AERA.

Training courses identified for CERC and PNGRB

#	Regulator Functions	Knowledge & Skill Requirement		Training Programme (figure in brackets refers to Annexure 6)
		CERC	PNGRB	
1	Market Economics and Development	<ul style="list-style-type: none"> • Development of Power Markets • Support Government on development of Policy / provide inputs • Policy related matters such as National Electricity Policy (NEP), National Tariff Policy (NTP) and statutory advice • Inputs in framing of new regulations, amendments to existing regulations • Analyse the need for new regulatory initiatives in terms of changing power markets. 	<ul style="list-style-type: none"> • Economic Analysis 	<ul style="list-style-type: none"> • FERC / RTO Training session (#7) • Executive Master of Finance and Control of Energy Industry (#8) • Energy essentials for decision makers (#9) • Energy analysis and modeling (#10) • Energy markets and security (#11) • Training programme on Energy regulation (#12) • Electricity markets regulation (#13) • Making the internal energy market a reality (#14) • Natural gas strategy course (#15) • Gas market regulation course (#16) • Introduction to the natural gas industry (#19)
2	Policy Formulation			<ul style="list-style-type: none"> • Executive Master of Finance and Control of Energy Industry (#8) • Energy essentials for decision makers (#9) • Energy analysis and modeling (#10) • Energy markets and security (#11) • Training programme on Energy regulation (#12) • Electricity markets regulation (#13) • Gas market regulation course (#16) • Introduction to the natural gas industry (#19)
3	Technical / Regulatory Affairs	<ul style="list-style-type: none"> • Grid Code • Analysis of petitions related to final tariff, provisional tariff, incentive, UI / RLDC, grant of license – transmission / trading, approval of power exchange, removal of difficulties pertaining to operating parameters, disputes in technical matters between beneficiaries and generators • Analysis of petitions related to inter-state trading matters • Calculation of escalation rate 	<ul style="list-style-type: none"> • Analysis of proposals – costs, machine, land, labour, return on capital, technology etc. 	<ul style="list-style-type: none"> • FERC / RTO Training session (#7) • Energy markets and security (#11) • Training programme on Energy regulation (#12) • Electricity markets regulation (#13) • Making the internal energy market a reality (#14) • Gas market regulation course (#16) • Training course on generation and transmission planning (#17) • Environmental review and compliance for natural gas facilities (#18) • Introduction to the natural gas industry (#19)
4	Financial Analysis	<ul style="list-style-type: none"> • Thermal / Hydro / Transmission projects: 		<ul style="list-style-type: none"> • Executive Master of Finance and

#	Regulator Functions	Knowledge & Skill Requirement		Training Programme (figure in brackets refers to Annexure 6)
		CERC	PNGRB	
		Prudence check of Capital cost, admissible expenditure • Determination of Tariff based on approved capital cost, additional expenditure etc. as per the regulations and truing up of tariff.		Control of Energy Industry (#8) • Training programme on Energy regulation (#12) • Electricity markets regulation (#13) • Gas market regulation course (#16) • Introduction to the natural gas industry (#19)
5	Investigation / Enforcement	• Monitoring of adherence to regulatory guidelines	• Monitoring of adherence to regulatory guidelines	• Electricity markets regulation (#13) • Training course on generation and transmission planning (#17)
6	Legal	• Deal with petitions - Tariff, Grant of License, Incentive, unscheduled interchange, additional capitalisation and petitions concerning all inter-state matters; including appeal/ petitions filed in Supreme Court, High Court and APTEL. • Validation of petitions • Scrutinize appeals/ petitions, prepare grounds, provide legal inputs to Commission in discharge of judicial/ quasi-judicial matters including proceedings, petitions, pleadings and listing of cases, prepare records of proceedings (RoP).	• Launching punitive action that is due • Conducting joint hearings • Legal matters, litigation, court proceedings	• Training programme on Energy regulation (#12)
7	Others	• Preparation of Monthly Market Monitoring Report and updates.		

In addition to the above training programmes, institutes such as the Electric Utility Consultants, Oxford – Princeton programme also offer courses that develop the above competencies. Since multiple courses are offered by these organizations, further details may be obtained from the training programmes 20 and 21.

Training courses identified for TAMP

It is to be noted that the institutions / organizations offering courses for regulation of ports was found to be limited. However, training programmes that address similar areas of TAMP's mandate have been identified.

#	Regulator Functions	Knowledge / Skill Requirements	Training Programme (figure in brackets refers to Annexure 6)
1	Market Economics and Development	<ul style="list-style-type: none"> • Maintain port database; port info bank • Analyse shifts in cargo nature handled by Indian ports • Economic forecasting / analysis based on above data⁵ 	• Diploma in Port Management (#26)
2	Policy Formulation		• Master's Programme in Shipping and Transport (#25)
3	Technical / Regulatory Affairs	<ul style="list-style-type: none"> • Analysis of proposals – evaluate costs, machine and labour productivity, return on capital, rationalities, rental practices, alternatives, nature and content of work, technology stagnation • Drafting of tariff order • Port charges and costing 	<ul style="list-style-type: none"> • Regulation & Best Practice - Getting the Balance Right (#22) • Master's Programme in Shipping and Transport (#25) • Diploma in Port Management (#26)
4	Financial Analysis		<ul style="list-style-type: none"> • Master's Programme in Shipping and Transport (#25) • Diploma in Port Management (#26)
5	Investigation / Enforcement		•
6	Legal	<ul style="list-style-type: none"> • Launching punitive action that is due • Conducting joint hearings • Legal matters, litigation, court proceedings 	•
7	Others		<ul style="list-style-type: none"> • Fundamentals of KPIs for Ports & Terminals training course (#23) • Container Terminal Performance and Planning with Simulation Technique(#24)

In addition to the above, Executive Development Programmes are organized by the World Maritime University (#27) in which the programme is customized to the requirements of the regulator. The details of the same may be obtained from programme 27.

Training courses identified for Competition Commission of India

With respect to the Competition Commission of India, it has been seen that the commission is already in tie up with several training institutes and organizations responsible for monitoring and ensuring competition in various sectors. However, we have identified that the Indian Institute of Corporate Affairs (IICA) provides general training and customised training programs. CCI may explore the option of a tie up with them for customised training programs.

⁵ The 3 areas of work mentioned have been obtained from the 'Study on Staff Requirement 2009' undertaken by the Indian Maritime University.

7 Way Forward and Action Plan

7.1 Action Plan for Implementation

Sl.	Activities	Responsibility
1	Implementation of Organization Structure	
1.1	Conduct manpower study required to staff the organization structure	Individual regulators
1.2	Obtain necessary approvals of manpower to meet structural requirements	Individual regulators
1.3	Regulator to fill posts through deputation / direct recruitment / consultants	Individual regulators
2	Implementation of Compensation	
2.1	Put up a proposal through FoIR to GoI to seek approval for adopting CPSE / SEBI pay scales	FoIR
2.2	Based on approval, regulator to work out detailed pay, allowances and benefits policies applicable to each regulator	Individual regulators
2.3	If required, based on manpower study (See 1.1), estimate detailed budget implications for necessary approvals	Individual regulators
3	Implementation of Training	
3.1	Identify / Finalize training programmes relevant to the areas of work of the regulator	Individual regulators
3.2	Tie up with concerned organization (Indian / Abroad) and block seats for the programme	Individual regulators
3.3	Constitute task force to take forward the setting up of the institute	FOIR
3.4	Approach funding agencies for support to set up institute and to sponsor training programs	FOIR / individual regulators

7.2 Empowerment / Autonomy of Regulators

As the regulators are operating on a fee basis, as long as they do not require financial assistance or financial support from the Government of India, they need to be empowered to take all decisions, some of which are listed below:

1. Creation / abolition of posts
2. Creation of compensation package and its adoption
3. Attend Training abroad / International visits
4. Formulation of HR Policies

Annexure 1: Meetings Held

Sl.	Date of Meeting	Regulator	Name of Person Met	Data Collected
1	14 Nov 2011	CERC	Mr Rajiv Bansal IAS (Secretary)	<ul style="list-style-type: none"> - Functions as mandated by Act - "As is" Organisation Structure / Manpower - Details of trainings conducted - Qualification & experience of various posts - Regulatory Information Management System report (prepared by Deloitte in an earlier engagement)
2	16 Nov 2011	CERC	Pankaj Batra, (CE)	
3	16 Nov 2011	CERC	Trilochan Rout, (Jt. Chief - Legal)	
4	16 Nov 2011	CERC	PK Awasthi, (Jt. Chief – Finance)	
5	16 Nov 2011	CERC	Dr. VM Deshpandey, (Chief Advisor – Economics)	
6	16 Nov 2011	CERC	Sushanta K Chatterjee, (Dy. Chief – RA)	
7	16 Nov 2011	CERC	Rahul Banerjee, (Sr. Advisor – PM)	
8	16 Nov 2011	CERC	Ramanuj Dey, (Asst. Secy)	
9	21 Nov 2011	AERA	Capt. Kapil Chaudhary (Secretary)	<ul style="list-style-type: none"> - Functions as mandated by Act - Organisation Structure of AERA - Salaries, Allowances & Service Conditions - Directory of Officers & Employees
10	21 Nov 2011	AERA	Mr Prashant Rastogi (Under Secretary)	
11	21 Nov 2011	CCI	Mr SL Bunker (Secretary)	<ul style="list-style-type: none"> - Functions as mandated by Act - Annual Report (CCI) 2009-10 - Circulars on filling up of various posts - Office memorandum on filling up of posts on deputation - Recruitment rules detailing qualification & experience of various posts
12	21 Nov 2011	CCI	Mr Manoj Pandey (Director)	
13	21 Nov 2011	PNGRB	Mr Ratan P Watal (Secretary)	<ul style="list-style-type: none"> - Functions as mandated by Act - Manpower Details - Qualification & experience of various posts (Advertisements)
14	25 Nov 2011	TAMP	Ms Rani Jadhav IAS Retd.	<ul style="list-style-type: none"> - Functions of TAMP - Existing Organisation Chart with

Sl.	Date of Meeting	Regulator	Name of Person Met	Data Collected
			(Chairperson)	details of sanctioned staff strength
15	25 Nov 2011	TAMP	Mr CS Venkatraman (Secretary)	<ul style="list-style-type: none"> - Study on Staff Requirement for TAMP (Indian Maritime University Study) - Recruitment rules detailing qualification & experience of posts in Group A,B,C & D
16	30 Nov 2011	PNGRB	Mr. K Rajeshwar Rao	
17	30 Nov 2011	PNGRB	Mr. Jaiyaram Prasad (Asst. OSD)	
18	19 Dec 2011	CCI	Mr Manoj Pandey (Director)	
19	19 Dec 2011	CCI	Dr SK Pandey (Joint Director – Law)	<ul style="list-style-type: none"> - Inputs on capacity building activities, training, recruitment of direct cadre, promotion, knowledge tie ups with other institutes, internships etc.
20	19 Dec 2011	CCI	Dr Seema Gaur (Advisor & Head Capacity Building & International Cooperation)	
21	19 Dec 2011	CCI	Mr Subramanian KB (Deputy Director)	
22	20 Dec 2011	CERC	Mr Ramanuj Dey, (Asst. Secy)	<ul style="list-style-type: none"> - Inputs on background for disciplines in CERC, regulations, pay and allowances, benefits (terminal, medical etc) related rules at CERC, procedures and remuneration for appointment of individuals as consultants etc.
23	18 Jan 2012	CERC	Mr Sushanta K Chatterjee, (Dy. Chief – RA)	<ul style="list-style-type: none"> - Inputs on need for common pool of expert resources for regulators across the country, need for setting up regulatory research institute on the lines of NRRI.
24	23 Jan 2012	PNGRB	Mr Ratan P Watal (Secretary)	<ul style="list-style-type: none"> - Inputs on sources of funds for training and international exposure, career progression for regulatory staff, setting up of regulatory research institute.
25	23 Jan 2012	PNGRB	Mr. K Rajeshwar Rao	<ul style="list-style-type: none"> - ‘As is’ data on PNGRB structure, pay and allowances, sources of manpower etc.
26	23 Jan 2012	PNGRB	Mr. Jaiyaram Prasad (Asst. OSD)	
27	01 Feb 2012	CERC	Mr Rajiv Bansal IAS (Secretary)	<ul style="list-style-type: none"> - Inputs on compensation benchmarking, setting up of regulatory research institute and common pool of experts.

Sl.	Date of Meeting	Regulator	Name of Person Met	Data Collected
28	07 Feb 2012	CERC / TAMP / CCI	Mr Rajiv Bansal IAS (Secretary, CERC) Mr CS Venkatraman (Secretary, TAMP) Mr GR Wadhwa (Advisor – Advocacy & HR)	– Presentation and discussion of preliminary recommendations and discussion on way forward in the assignment
29	7 Mar 2012	TAMP	Ms Rani Jadhav IAS Retd. (Chairperson) Mr CS Venkatraman (Secretary, TAMP) All officers from TAMP	– Feedback on preliminary report submitted
30	15 Mar 2012	CCI	Mr GR Wadhwa (Advisor – Advocacy & HR) Dr Seema Gaur (Advisor & Head Capacity Building & International Cooperation) Mr Subramanian KB (Deputy Director)	– Feedback on preliminary report submitted
31	28 Mar 2012	CERC	Mr Rajiv Bansal IAS (Secretary) Sushanta K Chatterjee, (Dy. Chief – RA) Mr Rajiv Pushkarna (Dy Chief – Finance)	– Feedback on preliminary report submitted
32	02 Apr 2012	CERC	Mr Rajiv Pushkarna (Dy Chief – Finance)	– Discussion on Compensation, Recruitment & Promotion chapters
33	03 Apr 2012	CERC	Mr Rajiv Pushkarna (Dy Chief – Finance)	– Discussion on Compensation, Recruitment & Promotion chapters
34	09 Apr 2012	CERC	Mr Sushanta K Chatterjee, (Dy. Chief – RA) Mr Rajiv Pushkarna (Dy Chief – Finance)	– Discussion on Compensation, Recruitment & Promotion chapters

Annexure 2: Minutes of Inception Meeting

Meeting Information:	
Meeting Name / Topic:	Inception Presentation on: Study on Assessing Capacity Building Requirements for Regulatory Staff
Date/Time/Location:	7 December 2011 / 3:00 PM / CERC
Meeting Duration:	1 Hour
Purpose of the meeting	Present the status of the project and progress made to the working group

Attendees:			
FoIR Representatives		Deloitte Representatives	
Mr. Pramod Deo	Chairperson – CERC	Prakash Tripathi	Senior Advisor
Mr. Rajiv Bansal	Secretary – CERC	Ajit Mathai	Director
Mr. MP Vijaya Kumar	Member – AERA	Koushik Venkataraman	Manager
Mr. Manoj Kumar Pandey	Director – CCI	Dhruv Goyal	Consultant
Ms. Neerja Verma	Assistant Secretary – FoIR		

#	Discussion Points
1	Mr. Mathai opened the presentation by thanking FoIR for the opportunity to present before its members. He introduced the Deloitte team and stated that the presentation to be made to the working group is an inception presentation and discusses what we had heard so far from the regulators. It was mentioned that more detailed meetings would be held with each regulator in the following weeks.
2	Mr. Mathai discussed in brief the scope of work of the engagement and the timelines within which the engagement was to be executed. It was mentioned that the inception presentation was to take place at the end of the second week of the project, but that the same was postponed. During this period, Deloitte stated that they had gone ahead with the engagement and had completed the first round of meetings with all regulators – an activity to be completed by week 7 as per the work plan.
3	A list of the individuals met in the various regulators and the data collected was also shared with the working group.
4	Deloitte mentioned that the first module of the engagement was on Organization Structuring. The similarities and variations in the structures of the various regulators were discussed. Deloitte mentioned during the presentation that the various regulators were structured differently. While CERC, PNGRB were sector regulators, TAMP and AERA were tariff regulators while CCI

#	Discussion Points
	operated across sectors.
5	Among the options to be explored, it was mentioned that Deloitte shall study the pros and cons of 'specialization' based structures V/s function / process output based structures.
6	It was mentioned that there was a need to distinguish between the regulator and the commission and that in the regulators, all decisions had to be routed through the Secretary only. The attendees mentioned that Deloitte may undertake a more detailed study of the individual regulators going forward.
7	In the second module – categorization of skills and recruitment, Deloitte discussed the common skills across regulators and regulator specific skills. It was mentioned that the skills shall need to be grouped into common themes and studied across regulators. The Secretary – CERC and Director – CCI also discussed the variations and challenges with regard to hiring people on the payroll (Direct Recruitment) V/s filling posts on deputation.
8	The Chairperson – CERC mentioned that there needs to be a balance in the manpower across functions. The areas such as power markets and economics, need to be strengthened. It was also mentioned that CERC has been unable to attract the right kind of talent because it is governed by the government pay scales and appointments are made predominantly on deputation.
9	In the next section on Compensation, Deloitte highlighted the regulators' concern that the regulators were not able to attract the right talent because of low compensation and that present positions were being filled on deputation or loan basis. It was mentioned that in CCI, the entry level post is that of Dy. Secretary, which is higher than that that an individual would get in government organisations.
10	Deloitte mentioned that a category wise comparison of the pay scales of equivalent levels / roles between regulators and against other regulators such as SEBI etc for similar roles shall be undertaken. Deloitte would also identify possible pay scales, allowances, perquisites and benefits that would bring them on par with similar profiles outside including PSEs. As part of the study Performance & Performance related rewards would be considered. Identify non-monetary benefits such as brand, exposure (job enrichment) etc. for talent attraction.
11	With respect to career and growth, it was mentioned that Deloitte shall classify jobs into generalist and specialist positions and identify different strategies for both. Explore option of common cadres for positions such as Finance, Economics and Legal. Deloitte suggested that the regulators may be able to attract talent if the stint at the regulator was given weightage in appointments to Director posts. The working group however felt that the recommendation will be difficult to implement as it involves changes in RRs in other companies.
12	It was mentioned that some of the typical people challenges that regulators face are that employees on loan can be withdrawn by the parent organization at any time. Also, employees were reluctant to move across states. Most employees move in to the private sector post-employment with the regulator.
13	In the module on Training, Deloitte mentioned that most regulators conducted some training programmes in house and some externally. CCI however had a structured induction training module and a capacity building vertical for the purpose of training. Also, the regulators may explore the option of tying up with institutes for specific capsule courses. It was discussed that institutes with courses on Regulatory Economics had contacted AERA recently.

#	Discussion Points
14	The presentation concluded with a discussion on the way forward and next steps of the consultant.
15	It was mentioned that international bodies such as NARUC and CAA (UK) may be looked at.

Annexure 3: Functions of Member Regulators

#	Function Groups	Member Regulators				
		AERA	CCI	CERC	PNGRB	TAMP
1	Policy / Advisory			<ul style="list-style-type: none"> Advise the Central Government on Formulation of National electricity Policy and tariff policy Advice the central government on promotion of competition, efficiency and economy in activities of the electricity industry 		
2	Tariff Regulation	<ul style="list-style-type: none"> Determine the tariff for the aeronautical services Provide different tariff structures that may be determined for different airports having regard to all criteria for structuring tariff Determine the tariff once in five years and may if so considered appropriate in the public interest, amend from time to time during the said period of five years, the tariff so determined. Determine the amount of the development fees in respect 		<ul style="list-style-type: none"> Regulate the tariff of generating companies owned or controlled by the Central Government Regulate the tariff of generating companies other than those owned or controlled by the Central Government specified in clause (a), if such generating companies enter into or otherwise have a composite scheme for generation and sale of electricity in more than one State Determine tariff for inter-State 	<ul style="list-style-type: none"> Regulate transportation rates for common carrier or contract carrier Levy fees and other charges as determined by regulations 	<ul style="list-style-type: none"> Regulation of tariff levied by the port for services rendered or facilities provided as specified under section 48 of the MPT Act, 1963. Fixation of charge, under section 49 of the said Act, for the use of properties belonging to, or in possession or occupation of, the port or place within the limits of the port or the port approaches. Fixation of fees, under section 49(A) and 49(B),

#	Function Groups	Member Regulators				
		AERA	CCI	CERC	PNGRB	TAMP
		<p>of major airports.</p> <ul style="list-style-type: none"> Determine amount of the passengers service fee levied To determine tariff, analyse CAPEX incurred and investment in improvement of airport facilities, the cost for improving efficiency, viability of airports and concession offered 		transmission of electricity		<p>respectively, of the said Act, for pilotage, hauling, mooring, re-mooring, hooking and measuring and other services rendered to the vessels and port dues on vessels entering the port.</p> <ul style="list-style-type: none"> Fixation, under section 50 of the said Act, of consolidated scale of rates for combination of services. The conditionalities governing application of the tariff / charges / fees / dues.
3	Other Regulatory Affairs			<ul style="list-style-type: none"> Regulate the inter-State transmission of electricity Issue licenses to persons to function as transmission licensee and electricity trader with respect to their inter-State operations 	<p>In respect of notified petroleum, petroleum products and natural gas:</p> <ul style="list-style-type: none"> Ensure adequate availability Ensure display of MRP fixed by the entity for consumers at retail outlets Secure equitable distribution for petroleum and petroleum products; Provide, by regulations, and enforce, retail service obligations for retail outlets and marketing service obligations for entities Register entities to market notified petroleum and petroleum products and, 	

#	Function Groups	Member Regulators				
		AERA	CCI	CERC	PNGRB	TAMP
					<p>subject to the contractual obligations of the Central Government, natural gases;</p> <ul style="list-style-type: none"> • Register entities to establish and operate liquefied natural gas terminals; • Register entities to establish storage facilities for petroleum, petroleum products or natural gas exceeding such capacity as may be specified by regulations; • Authorise entities to lay, build, operate or expand a common carrier or contract carrier; • Authorise entities to lay, build, operate or expand city or local natural gas distribution network; • Authorise entities to declare pipelines as common carrier or contract carrier; 	
3	Trade (Investment, Competition, Consumer Interest)		<ul style="list-style-type: none"> • Prevention and elimination of anti-competitive agreements, practices and arrangements • Inquire, investigate and pass orders into certain agreements and dominant position of enterprise • Inquire, investigate and pass orders on combination by 	<ul style="list-style-type: none"> • Fix the trading margin in the inter-State trading of electricity, if considered, necessary • Promote investment in electricity industry 	<ul style="list-style-type: none"> • Regulate access to common carrier or contract carrier so as to ensure fair trade and competition amongst entities and for that purpose specify pipeline access code • Regulate access to city or local natural gas distribution network so as to ensure fair trade and competition amongst entities as per pipeline access code 	

#	Function Groups	Member Regulators				
		AERA	CCI	CERC	PNGRB	TAMP
			commission		<ul style="list-style-type: none"> Monitor prices and take corrective measures to prevent restrictive trade practice by the entities; Monitor transportation rates and take corrective action to prevent restrictive trade practice by the entities; 	
4	Quality & Performance Monitoring	<ul style="list-style-type: none"> Monitor the set performance standards relating to quality, continuity and reliability of services 		<ul style="list-style-type: none"> Specify Grid Code having regard to Grid Standards Specify and enforce the standards with respect to quality, continuity and reliability of service by licensees 	<ul style="list-style-type: none"> Lay down, by regulations, the technical standards and specifications including safety standards in activities relating to petroleum, petroleum products and natural gas, including the construction and operation of pipeline and infrastructure projects related to downstream petroleum and natural gas sector; 	
5	Legal		<ul style="list-style-type: none"> On receipt of a reference from statutory bodies, give opinion, within 60 days of receipt of such reference, to statutory authority 	<ul style="list-style-type: none"> Adjudicate upon disputes involving generating companies or transmission licensee in regard to matters 		
6	Information Data Bank			<ul style="list-style-type: none"> Collect and analyse information from regulated entities and other stakeholders 	<ul style="list-style-type: none"> Maintain a data bank of information on activities relating to petroleum, petroleum products and natural gas 	

Annexure 4: Current Training Programmes of Regulators

1. Central Electricity Regulatory Commission

#	Function groups from Act	Training Attended	Attendees	Duration	Conducted by
1	Policy	Workshop on Carbon Bazaar 2009	Dy Chief (RA) / Jt Chief (Engg)	2 Days	German Federal, Ministry of Environment & Forest, Delhi
		Workshop on Network Driven DSM and Competitive Energy Services		2 Days	BEE, Delhi
		FICCI Environment Conclave		2 days	FICCI, Delhi
		8 th Annual Conference of IT in power	Jt Chief (Engg)	2 days	Power Line, Delhi
		Nuclear energy development in India	Chief (Engg)	1 Day	TERI, New Delhi
		Smart Energy Delivery Systems	Jt Chief (Engg)	1 Day	IIT Kanpur
2	Regulation (Tariff & Licence Monitoring)	Programme for officers of regulatory commissions	Jt Chief (Engg); Dy Chief (engg)	6 Days	IIT Kanpur
		Training in regulatory and policy framework for market development for renewable energy	Joint Chief (Fin) Jt Chief (Engg)	2 days	World Institute of Sustainable Energy, Pune
		Legal contract excellence	SK Jena & Associates	2 Days	Marcus Evans, Mumbai
		Core course on infrastructure regulation and reform	Asst Chief (Fin); Dy Chief (MIS)	5 Days	IIM Bangalore
		Power market professional course		3 Days	PXIL, Faridabad
3	Economics & Finance	Role of cost & management accounting in Regional Economic Development	Joint Chief (Fin)	1 Day	ICWAI, Delhi
		Intensive workshop on first time adoption of IFRS	Asst Chief (Engg)	3 Days	ICWAI, Delhi
		Workshop on sales tax / VAT	SK Jena & Associates	3 Days	ICWAI, Delhi
		Preparation of financial statements of autonomous bodies	Asst Chief (Fin) Sr Accounts Officer	2 Days	ICWAI Bhwan, Noida
4	Quality Assurance	Workshop on Power network analysis software	Jt Chief Engg	5 Days	PRDC, Bangalore
		Intelligent system application to the smart electric grid solution	Jt Chief Engg	5 Days	IIT Kanpur

#	Function groups from Act	Training Attended	Attendees	Duration	Conducted by
5	CERC Functioning	Workshop on role of HR & IT in developing executive secretaries	P.P.S	5 Days	NPC, Delhi
		Effective office secretary	P.P.S	5 Days	NPC, Jaipur

2. Competition Commission of India

#	Function groups from Act	Training Programs Attended by Employees	Attendees	Duration	Conducted by
1		Induction Training Programme	20 Officials	14 days	Indian Institute of Corporate Affairs (IICA)
		Induction Training Programme	20 Officers (Phase I and Phase II / 9 Officers – Phase III)	Phase I: 5 days; Phase II: 26 days; Phase III: 5 days	Indian Institute of Corporate Affairs (IICA)
2	Legal	Workshop on Legal Practices	15 Officials	5 half days	Legal Experts from Europe
3	Economics	Workshops on State of Competition in the Indian Economy (To review and coordinate market studies / research projects)	A large number of academic and research bodies		Foreign Investment Advisory Service (FIAS) & Department for International Development (DFID)
4	Trade (Investment, Competition, Consumer Interest)	Advanced Professional Program (Two other batches of the CCI officials have also undergone training at Directorate General Competition, Brussels)	6 Officials	5 days	Organized jointly by CCI through IICA and Office of Director General Competition, European Union*
		Inferring Agreements and Associations		4 days	US Fair Trade Commission (USFTC)
		Abuse of Dominance		3 days	OECD-Korea Policy Centre, Competition Programme & CCI
5	Investigation / Review	Conducting Merger Review		4 days	US Fair Trade Commission (USFTC)
		Planning and conducting investigations into Abuse of Dominance		4 days	US Fair Trade Commission (USFTC)
		Planning and conducting investigations into Horizontal Restraints		4 days	US Fair Trade Commission (USFTC)
		Planning and Conducting a Merger Investigation		4 days	US Fair Trade Commission (USFTC)
		Process of Merger Review: A Practical Guide		3 days	DG Competition, EU

3. Tariff Authority for Major Ports

#	Training Programs Attended by Employees	Attendees	Duration
1	Managing the Contract Labour	Shri. N.K. Parameswaran, S.O.(Administration)	30 & 31.8.2006
2	What Manager Should Know of	Shri. S.A. Nabar, Assistant Director (Finance)	1 & 2.09.2006
3	Training on Establishment Rules	Shri. N.K. Parameswaran, S.O.(Administration)	25 to 27.10.2006
4	Seminar on RTI	Shri. S.A. Nabar, Assistant Director (Finance)	4.5.2007
5	Training Programme on Reservation Directives for SC/ST/OBC & Others.	Shri. N.K. Parameswaran, S.O.(Administration)	24 to 28.9.2007
6	Training Programme on Features of Sixth Pay Commission & Pay Fixation	Shri. S.A. Nabar, Assistant Director (Finance)	16 & 17.10.2008
7	Training Programme on Features of Sixth Pay Commission & Pay Fixation	Shri. N.K. Parameswaran, S.O.(Administration)	16 & 17.10.2008
8	Training on Infrastructure Regulation & Reform	Shri. S.A. Nabar, Assistant Director (Finance)	26.4.10 to 30.4.2010
9	Income Tax Provision & Implementation	Shri. S.A. Nabar, Assistant Director (Finance)	27.1.2011
10	Income Tax Provision & Implementation	Shri. P.V. Gore, Cashier	25.02.2011
11	Income Tax Provision & Implementation	Shri. Devendra Kumar, Accountant	25.03.2011
12	Record Management	Shri. Vijaykumar B. Pakhidde, UDC	15.07.2011
13	Record Management	Shri. Sunil Kumar, LDC	29.07.2011
14	Income Tax Provision & Implementation	Shri. S.A. Nabar, Assistant Director (Finance)	18.07.2011
15	Income Tax Provision & Implementation	Shri. P.V. Gore, Cashier	4.08.2011
16	Improved Oral / written Communication and Report Writing	Shri. Sunil Kumar, LDC	5.08.2011
17	Managing Information & Communication Technology in Government Organisations	Shri. Sunil Dulange, Programmer	2 to 4.2.2007
18	How to make better IT buying decisions in Government Sectors.	Shri. Sunil Dulange, Programmer	22.03.2007
19	Training on IQUINOX Mailing System Software.	Shri. Sameer Velankar, Programmer	29.11.2007
20	Training cum workshop on CPGRAMS, DMIS & RTI	Shri. Sameer Velankar, Programmer	28 & 29.1.2008
21	Training on Multimedia & Webpage Designing.	Shri. Sameer Velankar, Programmer	31.12.2007 to 3.1.2008
22	Training Programme on Open Source-Desktop Linux.	Shri. Sameer Velankar, Programmer	12 to 16.5.2008
23	Training in the WEB Site Technologies, ASP Net & SQL Server.	Shri. Sameer Velankar, Programmer	21 to 23. 7. 2008
24	Seminar on Symantec Antivirus Software	Shri. Sameer Velankar, Programmer	16.6.2009
25	Workshop on Open Source Software tools / Technologies	Shri. Sameer Velankar, Programmer	15.9.2009

#	Training Programs Attended by Employees	Attendees	Duration
26	In-house Computer Training to Officers & Staff on Microsoft Excel	Officers & Staff of the Office (5 hours training / batch)	12.7.2010 to 6.8.2010
27	Training Programme on Computer Hardware	Ms. Jotsana Shringare Raghunath, Steno-D	10.8.2011 to 12.8.2011
28	Training Programme on Computer Hardware	Shri. Sunil Kumar, LDC	26.9.11 to 28.9.2011
29	International conference on the Regulatory environment	Shri. C.S. Venkatraman, Secretary	16.3.2009
30	Enabling Regulation for investment in infrastructure	Shri. C.S. Venkatraman, Secretary	3.11.2009 & 4.11.2009
31	Infrastructure Regulation & Reforms conducted by South Asia Forum of Infrastructure Regulator (SAFIR) in Administrative Staff College of India, Bangalore	Shri. S.A. Nabar, Assistant Director (Finance)	26.04.2010 to 30.04.2010
32	Infrastructure Regulation & Reforms conducted by South Asia Forum of Infrastructure Regulator (SAFIR)	Shri. C. Ramesh, Assistant Director (Cost)	27.2.2012 to 2.03.2012

Annexure 5: Current Training Initiatives of CCI

1. Training needs identified (Common to all Divisions)

Law Domain	Economics Domain	Financial Analysis Domain	General
<ul style="list-style-type: none"> Legal principles relating to Competition Law Reading /Understanding of court decisions- Finding ratio 	<ul style="list-style-type: none"> Principles of Competition economics Market definition and economic tools Techniques of data analysis (use of statistical packages , software) 	<ul style="list-style-type: none"> Accounting standards – domestic & international Analysis of balance sheet 	<ul style="list-style-type: none"> Understanding a sector Understanding of corporate due diligence reports Use of proof charts Order writing Report writing (Identification, Categorization of issues and evidence) Ethics & Confidentiality Records management Note writing skills Undertaking research Inter personal skills & team management Communication & presentation skills

2. Training needs identified (Specific to disciplines)

Division	Training Requirement
Secretariat	<ul style="list-style-type: none"> Forms & drafting of communication (agenda, letters , etc) Drafting of minutes of the meeting Maintenance of records
Anti-Trust	<ul style="list-style-type: none"> Analysis of information Analysis of DG report Order writing
Combination	<ul style="list-style-type: none"> Law & economics of merger Premarmer consultation Merger review (phase I, phase II, remedies) Valuation of enterprises Cross-border M&A
Legal	<ul style="list-style-type: none"> Framing issues for legal determination (writing/seeking legal opinion) RTI Recovery of penalty
Economics	<ul style="list-style-type: none"> Outsourcing, evaluating & utilizing sectoral studies Collection of economic data – Competition Law perspective Statistical, mathematical & econometric tools

Division	Training Requirement
Investigation	<ul style="list-style-type: none"> • Latest investigative techniques & technology –General • Latest investigative techniques & technology – mode specific (e.g. cyber) • Analysis of Investigation report • Financial Analysis
Capacity Building	<ul style="list-style-type: none"> • Training & development • Case research for learning • Knowledge development & management • Competition assessment, evaluation (audit) & investigation toolkit • Developing framework & operational modalities for International cooperation
Advocacy	<ul style="list-style-type: none"> • Tools used in Competition advocacy • Managing the media • Methods for developing interface with Government department, other sectoral regulators, industry associates
D.G Office	<ul style="list-style-type: none"> • Investigative tools • Collection and analysis of evidence from primary and secondary sources • Use of Information Technology in investigation • Detection of bid rigging- international best practices • Examination of witness • Undertaking investigation- relevant laws

The time table of the Induction Training Programme is shown below:

Day	Session 1 (9:45 am – 11:15 am)		Session 2 (11:30 am - 1:00pm)		Session 3 (2:00 pm - 3:30 pm)		Session 4 (3:45 pm – 5:15 pm)
1	Introduction – CBD (15mins) Salient features of Competition Act, 2002– Mr. Shekhar & Mr. Sukesh Mishra (75Mins)	Tea Break (11:15 am - 11:30 am)	Evolution and enforcement of Competition law – A Global Overview Dr. Sanjay Pandey & Mr. V.K.Singh & Praachi Misra	Lunch (1:00 pm - 2:00 pm)	Introduction to basic economic concepts – Mr.Rakesh Kumar & Ms. Sayanti Chakrabarti	Tea Break (3:30 pm – 3:45 pm)	Advocacy mandate of CCI – Mr.Rajendra Kumar
2	Anti-competitive agreements - Horizontal agreements including Cartels – Mr.Sanjay Bahadur		Anti-competitive agreements - vertical restraints– Mr.V.K. Singh				
3	Introduction to financial concepts - Mr. P.K. Purwar & Mr. AlokTripathi		Combinations regulation – Introduction & Issues Mr. Nirmal Mehrotra & Ms. Neeru Sharma				
4	Abuse of dominance (AOD) – Introduction – Case Studies Dr.SanjayPandey & Mr.V. K. Singh, Ms.Praachi Misra & Ms. Rohini		Issues faced in Abuse of dominance (AOD) Cases- Dr.SanjayPandey & Mr.V. K. Singh,				

Day	Session 1 (9:45 am – 11:15 am)	Tea Break	Session 2 (11:30 am - 1:00pm)	Lun ch	Session 3 (2:00 pm - 3:30 pm)	Tea Break	Session 4 (3:45 pm – 5:15 pm)
			Ms.Praachi Misra & Ms. Rohini				
5	Economics of Competition Dr. Seema Gaur		Enquiry and investigation – Mr. Ajay Chauhan		Procedural aspects of information handling at CCI from receipt to its final resolution & Confidentiality of information and security of document in CCI - Mr. P.K.Singh& Mr.Shiv Ram Bairwa	Tea Break (3:30 pm – 3:45 pm)	Discussion

Annexure 6: Training Programmes Identified

Training Programmes for AERA

#1	Economics of Airport Management
Course Outline	The aim of the course is to present managers with an array of skills in airport economics and performance, benchmarking management and insights into key business issues facing the industry. The course also acts as a forum where airport directors, managers, regulators and others who directly involved in airport operations namely airlines and other stakeholders can informally discuss and explore the key issues. The course consists of a programme of lectures delivered by eminent air transport economist Prof Rigas Doganis, Department of Air Transport Faculty, Cranfield University, UK and other visiting speakers representing airports, airlines and other related organizations. The programme also includes panel discussions where groups of participants are asked to discuss and solve various airport management problems.
Name of Institute	Cranfield University, Bedfordshire, United Kingdom
Name and Address of Contact Person	Ms. Napisah Ahmad Tel: +91 40 6739 5140, Email: napisah.ahmad@gmrgroup.in
Course Duration	2 days
Course Content / Syllabus:	
<ul style="list-style-type: none"> ▪ Airline Trends and Developments ▪ Key Trends in the Growth and Development of Airports ▪ Maximizing Airport Commercial Revenue ▪ Airport Retail Management ▪ Benchmarking Airport Performance ▪ Global Experience of Airport Economic Regulation ▪ Freight & Ground Handling Business ▪ Air Law & its Importance to Airports 	
Website Link	http://www.gmraviationacademy.org/training_programme.php

#2	EU Regulations for Airports
Course Outline	This overview course provides clear and concise interpretation of the obligations that airports in the European Community are required to adhere to. The existing EU Law and Policy will be fully explained and even the most intricate regulations will be made manageable. The course provides useful content for all EU airport managers and team leaders who need to implement these policies, and specifically responds to the needs of airports in the new European Union member States (those that joined in May 2004 and 2007).
Name of Institute	Airports Council International
Name and Address of Contact Person	training@aci.aero or via fax to: +1 514 373 1201 or call: +1 514 373 1200
Course Duration	3 Days (11-13 Jun 2012 / 22-24 Oct 2012)
Course Content / Syllabus:	
<ul style="list-style-type: none"> • Historic development of the European Aviation Market • Current and future developments of in the field of EU Aviation Policy and Law with effect on Airports • Presentation of all relevant EU Regulations and Directives having effect on airports • Interpretation and discussion on the obligations and chances the EU Regulations create for airports and related businesses 	
Website Link	http://www.aci.aero/cda/aci_common/display/main/aci_content07_c.jsp?zn=aci&cp=1-4613-8474-8480%5E29234_666_2__

#3	Airport User Charges
Course Outline	Designed to respond to the growing industry needs for fair airport charges determination process, this course emphasises the practical approach to learning (workshop with case studies) and is delivered by experts from ICAO Economic Analysis and Policy (EAP) Section of the Air Transport Bureau, ICAO Headquarters, Montréal. This course has been delivered on 14 occasions so far and has been attended by 240 aviation professionals from 84 countries
Name of Institute	International Civil Aviation Organisation (A UN body)
Name and Address of Contact Person	E-mail: eap@icao.int Tel: + 41 22 717-8585 Fax: + 41 22 717-8888
Course Duration	5 Days
Course Content / Syllabus:	
<ul style="list-style-type: none"> • Part 1: ICAO Policies on User Charges • Part 2: Establishing User Charges • Part 3: Consultation and Negotiation 	
Website Link	http://www.icao.int/sustainability/Pages/Icao-Aci-Course.aspx

#4	Air Traffic Forecasting
Course Outline	This training course has been designed to give essential guidance to airport managers and staff on interpreting air traffic forecasts and using different forecast techniques – their strengths and weaknesses. Using a combination of theoretical and case studies the participant will better understand the key industry drivers, the data available to the forecasters and the various forecasting techniques
Name of Institute	Airport Council International
Name and Address of Contact Person	training@aci.aero or via fax to: +1 514 373 1201 or call: +1 514 373 1200
Course Duration	3 Days (26-28 Mar 2012 / 01-03 Oct 2012 / 03-05 Dec 2012)
Course Content / Syllabus: (Enter in the cell below)	
The course curriculum will include: explaining forecasting air traffic development, interpreting existing air traffic forecasts, understanding the different data sources including MIDT, analyzing past trends and developing forecast assumptions, splitting traffic by market segmentation (coupon, true), short, medium and long term forecasts (annual and monthly), bottom up and top down methodology, building scenarios and sensitivity tests	
Website Link	http://www.aci.aero/cda/aci_common/display/main/aci_content07_c.jsp?zn=aci&cp=1-4613-8474-8480%5E29227_666_2__

#5	The Project Management Fundamentals Programme ACI / Global Training Partner Training Programme
Course Outline	<p>This programme covers the end-to-end project fundamentals of project management. It shows how to establish projects effectively from the start, monitor project performance, and ensure projects are completed.</p> <p>Although designed as a twelve-day integrated programme, these sessions can be conducted individually as stand-alone sessions, to focus on your organization's needs and to ensure the best value for your organization development investment.</p>
Name of Institute	Airport Council International
Name and Address of Contact Person	training@aci.aero or via fax to: +1 514 373 1201 or call: +1 514 373 1200
Course Duration	Four five day sessions over a three year period
Course Content / Syllabus: (Enter in the cell below)	
<ul style="list-style-type: none"> • Airport Project Management Essentials (Mandatory) - This highly interactive workshop guides participants through the various stages and challenges a project • Project Monitoring and Control (Elective) - Learn techniques for monitoring budgets and performance, working with risks, and ensuring quality outputs. Learn how to manage your team so that the work rolls along smoothly. • Organizational Leadership (Elective) – This session focuses on the three levels of leadership required for Airport staff, Creating Personal Leadership, Applying these techniques to Team Leadership, and Aligning to the Organizational Leadership. • Enterprise Risk Management (Elective) – In the dynamic airport environment, dealing with risk becomes a part of the day-to-day routine. All organizational teams should have a common understanding and approach to dealing with risk to ensure organizational value. • International Procurement and Contracts Management (Elective) – As our organizations increase the ability to succeed in the global environment, more and more of our employees are talking across borders and effectively making international agreements as part of their daily tasks, building scenarios and sensitivity tests 	
Website Link	http://www.aci.aero/cda/aci_common/display/main/aci_content07_c.jsp?zn=aci&cp=1-4613-8474-8480^39757_666_2__

#6	Multiple Courses (for details refer website below))
Course Outline	Multiple Courses (for details refer website below))
Name of Institute	International Air Transport Association
Name and Address of Contact Person	International Air Transport Association # 702, Tower 4A, DLF Corporate Park Phase III, Gurgaon 122002 Delhi (NCR), INDIA Tel: +91 124 4977111 Fax: +91 124 4977120
Course Duration	N / A
Course Content / Syllabus:	
<ul style="list-style-type: none"> ▪ Airline Contract Law ▪ Airport Certification and Standards ▪ Aviation Law for Managers ▪ Cargo Market Development for Airports ▪ EU Aviation Law ▪ EU Competition Law ▪ ICAO Safety Plan and Roadmap Implementation ▪ International Air Law - University of Geneva ▪ International Air Law for Lawyers and Legal Professionals ▪ Law of Aviation Insurance ▪ Legal and Financial Issues for Air Navigation Service Providers ▪ Managing Aviation Policy and Regulation ▪ Managing the Safety Oversight Function 	
Website Link	http://www.iata.org/training/Pages/quick-search.aspx

Training Programmes for CERC and PNGRB

Note: The training programmes for CERC and PNGRB have been combined in the section below, as it is seen that in most countries the regulator for Electricity and Petroleum and Natural Gas is the same. In the training programmes listed below also it shall be seen that the course content includes aspects for both regulators.

#7	Federal Energy Regulatory Commission / RTO Training Session
Course Outline	This two day training session will bring together experts and practitioners for an in-depth discussion on the role of the Federal Energy Regulatory Commission (FERC) and Regional Transmission Organizations (RTOs) in shaping America's electricity markets. Particular emphasis will be placed on ways that civil society groups can effectively participate in regulatory proceedings before these bodies.
Name of Institute	Institute for Policy Integrity
Name and Address of Contact Person	New York University School of Law Wilf Hall 139 MacDougal Street, Third Floor New York, NY 10012 Main Phone: (212) 992-8932 Fax: (212) 995-4592
Course Duration	2 Days (June 14 th – June 15 th 2011)
Course Content / Syllabus:	
<p>Day 1 : Legal Constructs, Reliability Issues and System Planning</p> <ul style="list-style-type: none"> • FERC and the Federal Power Act • Roles and Structures of the RTOs • Leveraging FERC and RTOs • Reliability Technical Analyses • How and When Reliability Issues Are Addressed • How to Talk to Transmission Engineers <p>Day Two: Beyond Reliability: Economics, Efficiency, Demand, and Clean Energy</p> <ul style="list-style-type: none"> • Strategies for Addressing Change at FERC and the RTOs • Overview of Electric System Economics • Advancing Demand-side and Renewable Alternatives • Improving Electric System Economics for our Preferred Energy Options 	
Website Link	http://policyintegrity.org/news/events/

#8	Executive Master of Finance & Control of Energy Industry (EMFC-EI)
Course Outline	The program consists of five two week sessions and a Master thesis and has a fast-track (on-campus, off-campus) structure. Prominent experts from a.o. Shell, PricewaterhouseCoopers and University of Groningen will act as lecturers.
Name of Institute	Energy Delta Institute, Energy Business School
Name and Address of Contact Person	Laan Corpus den Hoorn 300 9728 JT Groningen The Netherlands <i>Postal address:</i> P.O. Box 11073 9700 CB Groningen The Netherlands +31 (0) 50 524 83 19 Mr Richard Sanders sanders@energydelta.nl
Course Duration	Session 1: 04 April – 15 April 2011 Session 2: 05 September – 16 September 2011 Session 3: 21 November - 02 December 2011 Session 4: 19 March - 30 March 2012 Session 5: 03 September – 14 September 2012
Course Content / Syllabus:	
<p>The Executive Master of Finance & Control of Energy Industry (EMFC-EI) programme prepares the participants for senior financial professional positions within the energy industry and for the challenges of managing an energy business in a dynamic but – in terms of regulatory requirements – complex internal context. After completion of the programme the participant will:</p> <ul style="list-style-type: none"> • Be able to produce, analyze and combine financial information for high-level decision-making processes. • Have the knowledge and skills to effectively control the management of any organisation in the industry. • Be fully equipped to pro-actively initiate and supervise the implementation of sophisticated and state-of-the-art financial and management control systems. <p>EMFC-EI graduates will receive the internationally acknowledged degree of Executive Master of Finance & Control of Energy Industry. You will also have the option to enter for the Dutch Registered Controllers exam (RC).</p> <p>Course Topics:</p> <ol style="list-style-type: none"> 1. Advanced Corporate Finance and Economics 2. IT Information Management & Control and BIV/AO 3. Financial Accounting 4. Finance & Treasury 5. Management Control & Management Accounting 6. Fraud, Governance, Sustainability, Ethics & Compliance 7. Strategic Management & Supply Chain Management and Logistics 8. Organisation, Management & Culture 9. Tax Law & Regulation 10. Energy Law 11. Master thesis 	
Website Link	http://www.energydelta.org/mainmenu/executive-education/executive-master-programmes/executive-master-of-finance-control-for-the-energy-industry

# 9	Energy Essentials for Decision Makers
Course Outline	This course is suitable for professionals with a background in energy policy and management and at least three years of work experience in this area. The training will benefit both relevant government officials and experts from the private sector.
Name of Institute	International Energy Agency
Name and Address of Contact Person	Assen Gasharov IEA Training and Capacity Building assen.gasharov@iea.org www.iea.org/training
Course Duration	5 Days (2 - 6 April 2012)
Course Content / Syllabus:	
<ul style="list-style-type: none"> • Energy efficiency policy measures (0.5 day) • Technology deployment roadmaps (1 day) • Renewable energy markets, policy and technology (0.5 day) • Power generation portfolio planning and optimisation (0.5 day) • Long-term energy market forecasting (special focus on Gas) (0.5 day) • Gas markets – trends, prices, regulation, alternatives (1 day) 	
Website Link	http://www.iea.org/training/etw_programme.asp

Request a dedicated IEA training event: National and regional level institutions (e.g. central government, regional associations, multilateral institutions) may request dedicated training (additional to the list above) in one or more of the available themes. Please contact the IEA at training.programme@iea.org and we will arrange for a discussion to explore the available options.

# 10	Energy Analysis and Modelling
Course Outline	<p>A close look is given to a range of practical IEA energy analysis applications – from developing energy efficiency indicators to modelling a national power generation portfolio. Participants are introduced to the fundamental principles of energy analysis and modelling and then receive hands-on training on using tools such as the international TIMES power optimisation model and the MOMO transport model. Analysis at the national level as well as by sector of the economy is explored from both short and long-term perspectives. Computer-based exercises are included.</p> <p>This course is suitable for energy policy analysts and modellers dealing with energy performance indicators, fuel mix analysis, scenario development and power generation planning (some work experience in this area is required). The training will benefit employees in government departments and private sector companies involved in energy analysis and modelling</p>
Name of Institute	International Energy Agency
Name and Address of Contact Person	<p>Assen Gasharov IEA Training and Capacity Building assen.gasharov@iea.org www.iea.org/training</p>
Course Duration	5 Days (2 nd – 6 th April 2012)
Course Content / Syllabus:	
	<ul style="list-style-type: none"> • Energy statistics – key for analysis and modelling (0.5 day) • Long-term energy market outlook (World Energy Outlook) (0.5 day) • Energy efficiency indicators with practical exercises (1 day) • Energy technology modelling (TIMES and MOMO) with practical exercises (1.5 days) • Field trip (topic to be confirmed) (0.5 day)
Website Link	http://www.iea.org/training/etw12.asp

# 11	Energy Markets and Security
Course Outline	<p>A range of important issues regarding oil and gas market trends and prices, supply disruption and response, and market regulation will be explored. Particular attention will be given to natural gas as a fuel which contributes to the security and flexibility of national and international energy systems. The course has a very strong practical experience approach, and includes a simulation exercise of an oil supply disruption and a site visit to oil and gas facilities.</p> <p>This course is suitable for professionals with a background in oil and gas markets and energy security policy, and some work experience in this area. The training will benefit both relevant government officials and experts from the private sector.</p>
Name of Institute	International Energy Agency
Name and Address of Contact Person	<p>Assen Gasharov IEA Training and Capacity Building assen.gasharov@iea.org www.iea.org/training</p>
Course Duration	5 Days (2 nd – 6 th April 2012)
Course Content / Syllabus:	
<ul style="list-style-type: none"> • Energy statistics – oil, gas, supply disruption (0.5 day) • Oil market trends, prices, and forecasts (0.5 day) • Supply disruption policy, measures and a simulation exercise (1 day) • Long-term energy market outlook (World Energy Outlook) (0.5 day) • Gas markets – trends, prices, regulation, alternatives (0.5 day) • Electricity markets - trends, prices, regulation, alternatives (0.5 day) • Field trip - oil and gas facilities (0.5 day) 	
Website Link	http://www.iea.org/training/etw12.asp

# 12	Training Programme on Energy Regulation
Course Outline	<p>This training is composed of residential and e-learning parts:</p> <ul style="list-style-type: none"> ▪ First week in Florence, Italy: intensive introduction to course topics, presentation of participants, meeting the instructors, social events to stimulate networking among participants. ▪ 7-month e-Learning using a user-friendly and highly interactive platform, discussing topics daily, submission of activities weekly, supervision and feedback from instructors. ▪ – Second week in Florence, Italy: analysis of case studies, market game simulation, discussion of major issues, award of certificates in a final farewell ceremony.
Name of Institute	Florence School of Regulation, Robert Schuman Centre for Advanced Studies
Name and Address of Contact Person	<p>Training Coordinator Ernesto.Bonafe@eui.eu FSR Secretariat FSR.Secretariat@eui.eu FSR Conference Unit FSR.Conferences@eui.eu Course Director: Ignacio Pérez-Arriaga</p>
Course Duration	<p>10 October 2011 – June 2012 Registration 1 June – 10 September 2011</p>
Course Content / Syllabus:	
<ul style="list-style-type: none"> ▪ Topics Monopolistic and competitive activities ▪ electricity wholesale markets ▪ electricity transmission ▪ gas wholesale and retail markets ▪ gas network regulation ▪ electricity distribution ▪ quality of energy supply ▪ electricity retail markets ▪ tariff design ▪ regulatory authorities and legal procedures ▪ regulation of environmental issues in energy systems. 	
Website Link	http://fsr.eui.eu

Note: In addition to the above training programme, the institute also conducts courses such as:

Specialised Training on the Regulation Of Gas Markets

MedReg Training on the Regulation of Electricity Markets

Summer School on Energy Policy and EU Law

Summer School on the Regulation of Energy Utilities

The training coordinator mentioned in the table above may be contacted for these courses apart from a la carte courses for specific utilities.

# 13	Electricity Markets Regulation
Course Outline	<p>Focusing on electricity regulation with the objective to create knowledge in and understanding of regulation issues. The training program will provide and disseminate relevant knowledge related to conceptual properties and practical application of regulation in electricity industry. The webinars are designed in clear and understandable form in order to allow successful participation of non-expert audience.</p> <p>This training will be delivered by regulation experts of KEMA Consulting directed by Konstantin Petrov, energy economist and electrical engineer with major expertise in the areas of market design, regulatory economics and pricing. Dr. Petrov has worked in more than 25 countries in Europe, Australia, Asia, South America and North Africa.</p>
Name of Institute	Leonardo Energy
Name and Address of Contact Person	N / A (Training programme is an e-learning programme)
Course Duration	N / A (Training programme is an e-learning programme)
Course Content / Syllabus:	
<p>Webinar 1: Regulation – General Principles: This session explains the main tasks of regulation and addresses four main questions: what is regulated, where is regulated, how is regulated and how is the regulated. In addition we explain how the communication between regulator and regulated companies is organised and how is the regulatory performance measured.</p> <ul style="list-style-type: none"> ▪ General tasks of regulators – Price, Quality, Market functioning ▪ Areas of regulation ▪ Scope of regulation ▪ Methods of regulation ▪ Institutional questions ▪ Consultation and communication ▪ Regulatory performance - External performance, Internal Performance <p>Webinar 2: Market Design: This section explains the main properties of different types of electricity markets exhibiting different level of competition and different forms of organisation.</p> <ul style="list-style-type: none"> ▪ General market models - vertically integrated companies, single buyer, wholesale competition, retail competition ▪ Power pools - Price based, Cost based ▪ Markets with bilateral trade ▪ Balancing markets ▪ Power exchanges <p>Webinar 3: Price Regulation: This session explains different forms of price control including the classical rate of return organisation and more advance forms of incentive regulation. We explain also the principle design criteria of the different price control models.</p>	

- Major price control models - Rate of return, Cap regulation, Yardstick competition, Sliding scale, regulation
- Principle design criteria: Efficiency properties, Demand impact, Regulatory burden, Practicability, Coherence with industry/ market design

Webinar 4: Revenue requirements and RAB: The allowed revenue for provision of regulate services include the operating cost, depreciation and return on regulated assets. The return is calculated as the allowed rate of return (cost of capital) is charged on the regulatory asset base. This session explains how the regulated revenue is set and what is the role of regulatory asset base (RAB).

- Revenue components: Depreciation, Return on assets
- Regulatory asset base (RAB)
- Rate of return on assets
- RAB: Exiting assets, New investments, Capital contributions, Rolling forward
- Asset valuation: Historic cost, Replacement cost, Optimised replacement cost, Deprival value

Webinar 5: Cost of Capital: The weighted average cost of capital (WACC) methodology is a widely accepted method for calculating the allowed rate of return. Regulators use different models to settle allowed cost of capital. This section explains the models and their practical application.

- Definition of cost of capital: WACC, Cost of equity, Cost of debt, Capital structure (gearing), Treatment of taxes
- Quantification of cost of capital: CAPM (Capital Assets Pricing Model), Price Arbitrage Theory, Dividend Growth Model, Comparable Earnings Model, "Precedent Case" Approach
- Financial Analysis

Webinar 6: Efficiency Assessments: Regulators use efficiency assessment to set efficiency targets of the regulated service providers. This session explains the role of the efficiency assessment, the methods to measure efficiency and the incorporation of efficiency results in the price control.

- Why measure efficiency?
- Methods for efficiency assessments: Uni-dimensional ratio analysis, Statistical and econometric, methods, Linear programming methods, Virtual network models
- Application of efficiency results: TOTEX versus OPEX benchmarking, Building block approach, Cost controllability (short and long run), Efficiency convergence speed, Capping efficiency scores, Using efficiency bands

Webinar 7: Quality of Supply Regulation: Quality of supply regulation becomes more and more important as cost decreasing incentives may have a mid- and long-term effect on the quality provided. This session explains how quality of supply is defined, measured and regulated.

- Quality definition: Reliability, Commercial quality, Technical quality,
- Quality measurement
- Relevance of quality regulation
- Regulatory quality control
- Design of incentive schemes for quality

Webinar 8: Pricing: Once the revenue requirements are established they should be converted into

tariff systems. This session explains the major economic principles of electricity pricing and the general pricing models using average and marginal costs. The session explores the major pricing models for the electricity activities including: generation, transmission, distribution and retail activities.

- Pricing principles: Economic efficiency, Cost recovery
- General pricing models: Average cost pricing, Marginal cost pricing
- Cost allocation issue
- Pricing for different activities in the electricity industry: Generation pricing, Transmission pricing, Distribution pricing, Retail supply pricing

Website Link

<http://www.leonardo-energy.org/training-module-electricity-market-regulation>

Note: In addition to the above training programme, Leonardo Energy offers multiple online training programmes and contact programmes for Energy Professionals. The details of the same may be obtained from <http://www.leonardo-energy.org/e-learning>

# 14	Making the internal energy market a reality – which role for ACER
Course Outline	<p>With a view to work in the best interest of their citizens, European leaders have set an ambitious agenda for the energy sector – to complete a competitive, secure, transparent and fair Internal Energy Market by 2014; to remove energy islands and develop trans-European energy infrastructure and to create a EU-wide wholesale energy market monitoring scheme.</p> <p>Since its official opening in March 2011, the Agency for the Cooperation of the Energy Regulators (ACER) has worked together with national regulatory authorities, other European institutions and market participants to turn these objectives into a reality in order to bring tangible benefits to the European energy consumers.</p> <p>For its very first Annual Conference, ACER has invited other high level experts to contribute to constructive debates on what has been achieved so far and more importantly, what still needs to be done in the years to come. The conference will be open to the public.</p>
Name of Institute	Agency for the Cooperation of the Energy Regulators (ACER)
Name and Address of Contact Person	<p>rg republike 3, 1000 Ljubljana, Slovenia</p> <p>Email: info@acer.europa.eu</p> <p>Phone: +386 (0) 82053 400</p>
Course Duration	1 day (14 March 2012)
Course Content / Syllabus: (Enter in the cell below)	
<ul style="list-style-type: none"> ▪ Regulating the IEM: the challenges ahead ▪ Panel: The Internal Electricity Market: Implementing the Roadmaps ▪ Panel: The Internal Gas Market: Vision and Implementation ▪ Panel: The Infrastructure Challenge ▪ Panel: Market Transparency and Integrity 	
Website Link	http://www.acer.europa.eu/portal/page/portal/ACER_HOME/Communication/News/News1

# 15	Natural Gas Strategy Course
Course Outline	Theme 1: The context of the international gas business Theme 2: The gas value chain
Name of Institute	Energy Delta Institute, Gronigen, The Netherlands
Name and Address of Contact Person	Energy Delta Institute B.V. Laan Corpus den Hoorn 300 9728 JT Groningen, The Netherlands T +31 (0) 50 524 83 00 / F +31 (0) 50 524 83 01 / E info@energydelta.nl
Course Duration	2 weeks Part 1: 26 - 30 March 2012 – Moscow, Russia Part 2: 16 - 20 April 2012 – Gronigen, The Netherlands
Course Content / Syllabus:	
<p>Week 1 is designed to give participants insight in the processes and dynamics of the gas industry, its interfaces with governments and government policies, the management of uncertainties of changing business environments and the interaction with geopolitical developments. With this in mind, the first module focuses on the position that gas has achieved in the global energy environment, the fundamental characteristics of the gas industry and the role of technology within gas markets. On the supply side, the processes of developing commercial outlets for gas finds and the economic considerations behind the growth of the business will be discussed. Also the long-term energy outlook, the influence of environmental policies, and the resulting prospects for gas will be explored. The influence of geo-politics on energy supply will be demonstrated, in particular on natural gas policies and the industry response in terms of strategies and developments. From the market perspective a view will be given of the influence of changing government policies on the structure of the business, focussed on European developments.</p> <p>The second theme elaborates on the first one. It examines the influence, the presented and discussed contextual trends and developments in the gas business, especially in terms of opportunities and threats to either create or diminish business value. In order to develop new business in the world of natural gas participants will work with strategic business development concepts. In that framework the gas value chain will be decomposed and the particular contextual influences on each distinguishable part of this chain. In order to be able to judge the consequences of those influences the financial issues will be discussed and the risks of the new business will be considered.</p>	
Website Link	http://www.energydelta.org/mainmenu/executive-education/executive-master-programmes/executive-master-of-gas-business-management/natural-gas-strategy-course#126505

# 16	Gas Market Regulation Course
Course Outline	<p>This is one of three separate, though mutually linked Master programmes that can also be joined on a stand-alone basis. The three Master Programmes can be concluded by a Summer Academy and a Thesis project. After completion, the participant will be given an Executive Master of Gas Business Management. At the end of this course, participants will understand:</p> <ul style="list-style-type: none"> • The core processes of a liberalised market including nomination, balancing, allocation, capacity and commodity markets. • Business and regulatory scenarios which lead to market change. • The roles, behaviour and sometimes conflicting aims of market participants including incumbents, new entrants, and regulators. • The leading edge thought on security of supply and its potential conflict with market opening.
Name of Institute	Energy Delta Institute, Gronigen, The Netherlands
Name and Address of Contact Person	<p>Course Manager Richard Sanders sanders@energydelta.nl +31 (0) 50 524 83 19)</p>
Course Duration	5 Days (Week 1: 11 - 15 March 2013 / Week 2: 8 - 12 April 2013)
Course Content / Syllabus:	
<p>Week 1:</p> <ul style="list-style-type: none"> • Gas liberalisation terminology • Gas market liberalisation principles • The regulator: objectives, means and methods • Global overview: countries' gas studies in perspective • Economic aspects of gas market liberalisation • Country study • The incumbent • Business processes required in a competitive market • LNG terminals and regulation • New entrants; New business opportunities • Gas exchange trade • Big consumers • Strategic developments • Security of demand and supply • Assignments and case work <p>Week 2:</p> <ul style="list-style-type: none"> • Intercultural differences in gas market regulation • Russian gas business • Country study • Gas exchange • Negotiations & Lobbying • Assignments and case work 	
Website Link	http://www.energydelta.org/mainmenu/executive-education/executive-master-programmes/executive-master-of-gas-business-management/gas-market-regulation-course

# 17	Training Course on Generation and Transmission Planning
Course Outline	<p>The general objective of this training course is to expose participants to international best practices in generation and transmission system expansion planning techniques and methodologies that ensure an integrated grid can sustainably and cost-effectively meet the demand for new power generating capacity. Moreover, the course will provide the participants with insight into the major tasks of energy policy and energy regulation, and their interactions with the planning process.</p> <p>The training will address not only the normative concepts but also daily working practice. Real-life problems and examples from previous projects will be considered in the form of case studies.</p>
Name of Institute	KEMA Academy
Name and Address of Contact Person	+91 98 860 41654 +91 99 8002 7329
Course Duration	Not yet determined
Course Content / Syllabus:	
<ul style="list-style-type: none"> ▪ Key aspects of integrated power system planning: ▪ Policy and regulatory aspects ▪ Technical aspects ▪ Economic and financial aspects ▪ Environmental and social aspects 	
Website Link	http://www.kema.com/services/training/Training-courses/Management-general/Generation-Transmission-planning.aspx

# 18	Environmental Review and Compliance for Natural Gas Facilities (Seminar)
Course Outline	<p>This 3-day interactive seminar will describe how to successfully navigate the FERC process from project concept to post-construction monitoring. The first part of the seminar will step you through the regulations and environmental analysis of a pipeline project focusing on Pre-filing, environmental report preparation, and the FERC application processes.</p> <p>The second part of the seminar will include a 45-minute introduction to pipeline construction for industry newcomers, a discussion of pre-construction preparation considerations, and a review of mitigation measures for pipeline construction and restoration.</p>
Name of Institute	Federal Energy Regulatory Commission
Name and Address of Contact Person	Yulia Kalikhman 202-502-6471 yulia.kalikhman@ferc.gov
Course Duration	3 days (March 13 – 15, 2012)
Course Content / Syllabus:	
<ul style="list-style-type: none"> • An introduction to FERC and its jurisdiction; • An overview of FERC's environmental regulations for natural gas pipeline, storage, and liquefied natural gas (LNG) facilities; • A step-by-step description of the FERC environmental review process for a 7(c) project from Pre-Filing through issuance of a Notice to Proceed with Construction; • Reporting and notification requirements for Blanket Certificate and 2.55 projects; and • Practical insights and examples. <p>A discussion of FERC's environmental compliance program for natural gas facilities from pre-construction preparation through restoration;</p> <ul style="list-style-type: none"> • A review of the baseline mitigation measures detailed in the FERC Upland Erosion Control, Revegetation, and Maintenance Plan and the FERC Wetland and Waterbody Construction and Mitigation Procedures; and • Real examples of implementation and compliance challenges. 	
Website Link	http://www.ferc.gov/EventCalendar/EventDetails.aspx?ID=6186&CalType=%20&CalendarID=116&Date=03/13/2012&View=Listview

# 19	Introduction to the Natural Gas Industry
Course Outline	<p>The SGA's <i>Training Week</i> provides an excellent opportunity for employees to receive valuable, industry specific training in only a few short days. Workshops are often combined during the week so that attendees can attend multiple classes to get the most benefit out of their travel and schedule.</p> <p>Beginning with Introduction to the Natural Gas Industry, new employees can get up to speed quickly with a broad overview of the industry. In addition to the Introduction class, participants then have the option of attending other classes that will assist them in their professional development.</p>
Name of Institute	Southern Gas Association
Name and Address of Contact Person	<p>Gary Hines Address: CenterPoint Energy 1111 Louisiana Houston, TX 77002</p>
Course Duration	2 days (15 – 17 May 2012)
Course Content / Syllabus:	
<p>Workshops</p> <ul style="list-style-type: none"> • Introduction to the Natural Gas Industry • Introduction to Regulated Natural Gas Accounting • Business, Bucks and the Bottom Line: Understanding Finance and Accounting for the Energy Professional • The Ratemaking Process • How Natural Gas Is Bought and Sold • Managing for Business Results: The Tools and Structures for Organizational Success 	
Website Link	http://www.southerngas.org/index.php/index.php/event-calendar/286

# 20	Multiple Courses
Course Outline	Multiple Courses
Name of Institute	Electric Utility Consultants Inc (EUCI)
Name and Address of Contact Person	Physical Address: 4601 DTC Blvd., Suite 800, Denver, CO 80237 Billing Address: 5555 Preserve Drive, Greenwood Village, CO 80121 Main Phone: 303-770-8800 Main Fax: 303-741-0849 E-mail Addresses: Sales and registration: lmrig@euci.com
Course Duration	N / A
Website Link	http://www.euci.com/live_events.php

# 21	Multiple Courses
Course Outline	Multiple Courses
Name of Institute	Oxford Princeton Programme
Name and Address of Contact Person	1 North Bridge Road #17-04 Singapore - 179094 Tel: (+65) 6837 8030 Fax: (+65) 6337 7691 asiapacificsales@oxfordprinceton.com
Course Duration	N / A
Course Content / Syllabus:	
The Oxford Princeton Programme offers world-class commercial training courses in oil/petroleum, natural gas, LNG, LPG, power/electricity, biofuels, renewables and other aspects of today's dynamic energy and derivatives markets including trading, hedging, risk management and the physical markets. All energy training courses are exclusively designed by renowned expert faculty for all levels of expertise. Choose from live instructor-led classroom and workshop, on-site (in-house) and web-based instruction.	
Website Link	http://www.oxfordprinceton.com/public-courses/upcoming-courses.html

Training Programmes for TAMP

Note: In the section below, training programmes pertaining to the Shipping and Ports sectors have been included. While courses directly linked to port regulation were found to be limited, courses pertaining to similar related areas have been identified and listed below:

#22	Regulation & Best Practice - Getting the Balance Right
Course Outline	This years' focus is on ship inspection to ensure quality operations and compliance with regulations and best practice. There will also be two parallel workshop sessions, one to consider Implementing Best Practice, and the other to look at Future Needs for Best Practice Development. The final programme will be available at the WMU web-site.
Name of Institute	The World Maritime University (WMU) and the Nautical Institute (NI)
Name and Address of Contact Person	WORLD MARITIME UNIVERSITY PO Box 500, S-201 24 Malmö, Sweden Citadellsv. 29, 21118 Malmö Telephone: +46 -40 - 35 63 00 Fax: +46 - 40 - 12 84 42 E-mail: info@wmu.se
Course Duration	1 day / 17 April, 2012
Course Content / Syllabus:	
<p>The World Maritime University (WMU) and the Nautical Institute (NI) hold an annual joint seminar to debate and explore the balance between using regulation and best practice guides to address the operational challenges in the maritime industry. The seminar is therefore open to everyone active in the maritime sector who has an interest in the topic.</p> <p>The seminar will offer a programme of keynote speakers, panel discussions and workshops, to discuss the current implementation of best practice and to analyse future needs for development and growth. Keynote speakers come from InterManager, US Coast Guard as well as from the Nautical Institute and the World Maritime University.</p> <p>The seminar will be held at the World Maritime University in Malmö in conjunction with AGM of the Swedish Branch of the Nautical Institute. There is no charge to participants, but it is necessary to register if you intend to attend because of limited seats in the seminar venue.</p>	
Website Link	http://www.wmu.se

#23	Fundamentals of KPIs for Ports & Terminals training course
Course Outline	The programme gives a comprehensive grounding in theories of performance improvement, placed in the context of business strategy. It shows how to select and develop the right KPIs to measure the processes which ultimately have the biggest impact on efficiency.
Name of Institute	Lloyd's Maritime Academy
Name and Address of Contact Person	Lloyd's Maritime Academy - Distance Learning Admin Tel: +44 (0) 20 7017 5510 Email: LMAadmin@informa.com Andrew Matthews Tel: +44 (0)20 7017 7406 Email: andrew.matthews@informa.com
Course Duration	21 Hours (CPD)
Course Content / Syllabus:	
<p>This KPIs for Ports & Terminals course includes typical examples of what can be measured in port and terminal operations, giving you the tools to select only those KPIs which will give you the most meaningful information. You will also learn how to introduce these KPIs across the organisation using the Balanced Scorecard and Strategy Map methodologies.</p> <p>Six detailed modules give you the knowledge you need to select the best Key Performance Indicators for your business:</p> <ul style="list-style-type: none"> ▪ KPIs and Performance Management for Ports and Terminals ▪ Using a Balanced Scorecard to Organise KPIs ▪ Using Strategy Maps to Link KPIs ▪ Developing KPIs ▪ KPIs for Ports and Terminals ▪ Implementing KPIs Using the Balanced Scorecard and Strategy Map Approach 	
Website Link	http://www.informaglobalevents.com/event/kpis-for-ports-terminals-distance-learning

#24	Container Terminal Performance and Planning with Simulation Technique
Course Outline	The aim of this course is to provide the participants the basic concept of port logistics and its meaning of total transport chain with a particular emphasis on a container terminal and to discuss the importance of a proper container terminal capacity (PCTC) for both a port and its customer. In order to fulfill this, with the development of a relevant simulation programme, an analysis of the proper handling capacity for container terminal will be made. Further economic impacts arisen from the improper container terminal capacity will be examined from the total cost incurrent in the port.
Name of Institute	World Maritime University
Name and Address of Contact Person	World Maritime University PO Box 500, S-201 24, Malmö, Sweden Street address: Citadellsv. 29, 21118 Malmö Telephone: +46 -40 - 35 63 00 / Fax: +46 - 40 - 12 84 42 E-mail: info@wmu.se
Course Duration	5 days / 20 - 24 August 2012
Course Content / Syllabus:	
<p>The course objectives are</p> <ul style="list-style-type: none"> ▪ to explain the concept of port logistics and its meaning in terms of total transport chain. ▪ to discuss the importance of PCTC for both a port and its customer ▪ to identify factors affecting PCTC and analyse port transport system in terms of total transport chain ▪ to demonstrate the implication of an improper container terminal capacity from the viewpoint of futuristic planning and development ▪ to use the simulation programme for calculating PCTC <p>The course trainer is Daniel S.H. Moon - currently is an INMARSAT CHAIR Professor of World Maritime University. Prof. Moon has earned his PhD degree in Port Economics from the Cardiff University, UK. His area of teaching and research interest has been closely related to ports in terms of management, operation and logistics.</p>	
Website Link	www.wmu.se

#25	Master's programme in Shipping and Transport			
Course Outline	The Master program consists of 21 courses with a combined study load of 60 credits and a thesis project with a study load of 21 credits. This credit system is derived from the standardised system (ECTS) for measuring study load as a way to facilitate international mobility. One ECTS credit represents 28 hours of full-time study, 60 credits represent one full-time year of study. The duration of the Master program is 1 ½ years for the fulltime program and 2 ½ years for the part-time program. This includes 6 months for the Master thesis.			
Name of Institute	Netherland Maritime University			
Name and Address of Contact Person	Netherland Maritime University P.O. Box 63140, 3002 JC Rotterdam, The Netherlands Tel. +31 10 448 6060 / Fax +31 10 448 6061 E-mail info@stc-nmu.eu			
Course Duration	2 Years			
Course Content / Syllabus:				
Module 1	Module 2	Module 3	Module 4	Module 5
Shipping and Transport Introduction	Corporate Maritime Management and Strategy	Shipbroking and Chartering	Port Design and Management	Research Methodology
Supply Chain Management	Maritime Finance and Controlling Management - part I Basics in Finance	The Business of Shipbuilding, Sale and Purchase	Inland Waterways and Water Transport	Thesis Assignment
Applied Management Science	Human Resources Management in Shipping	Fleet Management	Maritime Finance and Controlling Management - part III Port Finance	
Shipping and Port Economics	Human Resources Development in Shipping	Transport Security		
Ocean Management and Marine Policies	Cargo Operations Management	Marine Survey and Safety Management		
Maritime Policies and Governmental Politics		Maritime Finance and Controlling Management - part II Shipping Finance		
Shipping, Trade and Transportation Law		Specialisation 1: Marine Engineering	Specialisation 2: Port and Fairway Design	
Shipping and Transport Industry	Corporate Management	Shipping Management	Port and Waterways Management	Thesis Project
Management Skills & Competency Development				
Website Link	http://www.stc-nmu.eu/documents/BrochureMasterShippingandTransport.pdf			

#26	Diploma in Port Management
Course Outline	Studying Port Management will give you the opportunity to apply knowledge, without disruption or time away from your work. It is delivered through a proven flexible method with student support available online, via the course team and at the two optional seminars.
Name of Institute	Northwest Kent College
Name and Address of Contact Person	Soulla Neophytou Tel: +44 (0)20 3377 3622 Email: soulla.neophytou@informa.com
Course Duration	12 Months
Course Content / Syllabus:	
<p>Diploma in Port Management Course Programme includes:</p> <ul style="list-style-type: none"> • Introduction to Port Management • People Management • Commercial Management • Marketing and Business Development • Finance, Accounting and Budgeting • Port Design and Engineering • Port Project Management: Principles and Techniques • Port Environmental Management and Environmental Stakeholder Relations • Ensuring a Safe and Secure Port • Managing Marine Operations and Conservancy • Case Study: Development Project <p>IBC Academy manages this course on behalf of the School of Maritime Operations and Logistics at North West Kent College.</p>	
Website Link	http://www.informaglobalevents.com/event/port-management-distance-learning-training-course/Course-content

#27	Executive Development Programmes
Course Outline	EDP programmes are “customer-specific” program which is specially designed and tailored to meet the needs of a particular organization.
Name of Institute	World Maritime University
Name and Address of Contact Person	World Maritime University PO Box 500, S-201 24, Malmö, Sweden Street address: Citadellsv. 29, 21118 Malmö Telephone: +46 - 40 - 35 63 00 / Fax: +46 - 40 - 12 84 42 Internet: www.wmu.se / E-mail: info@wmu.se
Course Duration	<Multiple Courses>
Course Content / Syllabus:	
<p>A close relationship is established between the customer and the educator right from the initial design stage. Joint efforts are made to ensure that the problems encountered by the organization are thoroughly analyzed and the key issues clearly identified. This allows for the educational objectives to be well formulated, course Programs well drafted and the most suitable teaching staff well selected.</p> <p>Participants are also carefully chosen by the customer organization. Their past experience, potential plans, English language skills and personal motivation are all factors to be considered. The program Director, at the customer's invitation, is to be involved in all stages of the process to ensure that the quality of the learning is maintained and the objectives are effectively achieved.</p> <p>Where there are a number of specific topic areas which the customer wishes to have discussed in greater depth, these topics are assigned to the participants in working groups. During the course, dedicated time is reserved for these topics to be discussed with the experts. During the final unit of the program, the participants work in small groups to write a report based on their class discussions with the experts as well as on the new ideas they have acquired and developed during the entire course.</p>	
Website Link	http://www.wmu.se/academic-programs/short-courses/executive-development-programs

Annexure 7: Concept Note for Regulatory Research Institute

1. About this document

This document constitutes a part of the assignment being carried out by Deloitte Touche Tohmatsu India Pvt Ltd (Deloitte) for the Forum of Indian Regulators (FOIR) on “Capacity Building Requirements for regulatory staff”.

As part of the assignment, the Central Electricity Regulatory Commission, a member of FOIR, has requested the Deloitte team to prepare a concept note for the regulators to set up a regulatory research Institute on the lines of National Regulatory Research Institute (NRRI), USA.

The background to this request (which is further explained in the next section) is based on the dearth of qualified manpower available with the regulators.

This note provides a framework for the regulators to consider in order to set up such an Institute.

It may be noted that while the assignment was to cover the capacity building requirements of regulatory staff of FOIR member regulators, which includes regulators of different sectors – Power (CERC and State ERCs), Oil & Gas (PNGRB), Airports (AERA), Ports (TAMP) and Competition Commission of India, this note is prepared primarily focusing on the Electricity Regulators who are members of FoR (Forum of Regulators). It may be noted that the power sector is currently the only sector in India that has state level regulatory bodies and has large manpower requirement in terms of regulatory staff when considered across the country.

2. Background

As part of the Terms of Reference of the Assignment, the Deloitte team was required to cover the following:

Area	Scope of Work
Organisation Structure	<ul style="list-style-type: none"> Critically analyse existing organisation structure, recruitment policies, promotional avenues and compensation payable and identify shortcomings which impedes induction and retention of talent. Suggest modifications in organisation structure, if existing structure found inadequate to carry out mandate
Categorisation of Skills & Recruitment	<ul style="list-style-type: none"> Categorise staff into different groups based on skill level and qualification required Suggest suitable recruitment policies in line with best industry practices – including detailed analysis of borrowing from other govt. departments / deputation
Compensation	<ul style="list-style-type: none"> Evolve suitable compensation packages for different categories of staff – factoring constraints of government funding policies and need to attract & retain skilled manpower
Career & Growth	<ul style="list-style-type: none"> Design suitable mechanism of career progression of employees to address issues of promotion avenues, reward efficiency based on objective performance appraisal – Explore option of common cadre for

Area	Scope of Work
	various regulatory bodies
Training	<ul style="list-style-type: none"> Study existing training policies adopted to align them to meet organisational requirements; Identify training requirements of different categories to upgrade skills and keep them up to date; suggest mechanism to impart such training periodically through reputed Institutes identified – domestic & international; Suggest ways and means of funding (domestic & international) for training of employees

In addition to the above areas, Deloitte will also draw up an action plan to implement the recommendations – within the framework of existing administrative & financial powers of the regulatory body and identify those which need government approval.

During the 27th Meeting of Forum of Regulators (FoR) held on 16th December 2012 at Raipur, Chhatisgarh, a presentation was made by Shri Sushanta Chatterjee, Deputy Chief (Regulatory Affairs), CERC to the members. Subsequent to the presentation, the following point emerged (as quoted from the Minutes of the Meeting):

“While appreciating the need for compliance of the provisions of the Act and the Policy in terms of the issuance of Tariff Orders and also of periodical reporting of the same, the members articulated the need for adequate manpower and capacity building of staff as well as of the external resources called upon by the Regulators.

There is acute shortage of regular staff in most commissions because of the constraints of pay structure and other facilities. At the same time, there is a dearth of adequate number of consultants / consulting firms to meet the requirements of all regulatory commissions in the country.

Need for creating a central pool of external resources / consultants was reiterated. Suggestions were also made for creation of a national level Institute of regulatory experts where from the regulatory commissions can draw human resources to meet their specific job requirements.

It was informed that Forum of Indian Regulators (FOIR) has commissioned a study for suggesting staffing pattern, compensation packages and capacity building requirements of Regulatory Authorities in the infrastructure sector. It was suggested that the consultant be also advised to examine the above needs and make suitable recommendations in this regard for FOR to consider separately.”

The needs that emerged from the meeting have been underlined in the above text and the same shall be the focus of this document.

3. Other Institutes considered

In consideration of the above needs expressed by the electricity sector regulators who are members of FoR, the Deloitte team considered the following Institutes as case studies to develop a framework for setting up a national level Institute that would consist of regulatory experts to support the regulators in terms of expert and skilled manpower whom the regulators can draw upon for their requirements (a central pool of experts) and also be a research body that would aid the regulators in framing policies and in taking decisions.

1. NRRI (National Regulatory Research Institute), USA
2. National Institute of Securities Markets, India
3. ICAI – Accounting Research Foundation (ARF), India

The rationale for choosing these Institutes to build this framework is explained below:

1. NRRI is an Institute that focuses specifically on regulatory research and has on its team regulatory experts who carry out research to meet the needs of regulators in the USA. NRRI

was created by NARUC which is an association of regulators which can be viewed as a parallel to FoR / FOIR.

2. NISM is a Trust which carries out research, conducts courses / programs, conducts examinations and also consists of experts in the field. It is an Institute set up by SEBI, a regulator of the securities market and has evolved a mature Institute in terms of its capabilities
3. ARF is a section 25 Company under the Institute of Chartered Accountants in India. The ICAI regulates accounting policies and ARF is a research body under the aegis of the ICAI.

4. Objectives & Functions of the proposed Institute

The Objectives of the proposed regulatory research Institute and therefore its functions or activities need to be defined. Based on the inputs from the other institutes, Deloitte has compiled a list of possible objectives for the Institute. The forum needs to take a decision on which of these would be taken forward as the final objectives of the proposed Institute.

It may be noted that while the assignment was to cover the capacity building requirements of regulatory staff of FOIR member regulators, which includes regulators of different sectors – Power (CERC and State ERCs), Oil & Gas (PNGRB), Airports (AERA), Ports (TAMP) and Competition Commission of India, this note is prepared primarily focusing on the Electricity Regulators who are members of FoR (Forum of Regulators). It may be noted that the power sector is currently the only sector in India that has state level regulatory bodies and has large manpower requirement in terms of regulatory staff when considered across the country.

We believe that the proposed Institute will have five pillars of its operations as its functions:

1. Research
2. Consulting services (pool of resources comprising of sector and functional experts to be drawn by the regulators and also to carry out consulting assignments for regulators)
3. Training
4. Knowledge management / repository of information
5. Knowledge exchange / capacity building

It may be noted that while each of the above functions will have significant dependence on each other, it is important to build separate accountability in the form of performance parameters for each of these functions.

The list of possible objectives and functions have also been classified into the above areas as provided below:

Research:

1. To identify regulatory challenges, both current and future by tapping the thinking of all regulators, forums / associations, consultants, industry stakeholders, government and government agencies and last but not the least, the public
2. To produce an always existing, regularly refreshed research agenda, publicly available for comments
3. To carry out research based on the changing needs and the challenges of the regulatory environment such as new interest groups, technological change, stakeholder expectations etc
4. To create the new knowledge necessary to meet current and future regulatory challenges by performing the original research necessary to ensure the quality of regulation

5. To carry out research that aids the regulators in effective policy making based on facts, objective analysis and independence by ensuring that the process of fact gathering, fact sifting, analysis and reasoning are neutral and transparent
6. To carry out research whose outputs enable readers to reach their own conclusions
7. To carry out research whose outputs also indicate effectiveness of prevalent regulations and regulators
8. To undertake, promote and provide facilities for prosecuting core, fundamental, empirical, applied and other kinds of research work and projects and studies
9. To undertake research projects in specialised areas on a fee basis
10. To carry out multi-disciplinary research in collaboration with other research bodies and educational institutions
11. To award, institute, and grant scholarships, and other forms of financial assistance for facilitating research work

Consulting services

1. To respond quickly to emerging needs of the regulators and to provide them with expert resources for the regulators to operate effectively
2. To assist the regulators with expert staff to address their short term resource requirements
3. To provide inputs in formulation of policies and regulations and their implementation at macro and micro levels through a consultancy fee basis

Training:

1. To democratise access to existing knowledge by generously sharing regulatory knowledge with the framework of intellectual property rights
2. To establish itself as an “academy” of international standard for the purpose of imparting, disseminating, and promoting knowledge related to regulatory aspects from different functional and sector perspectives
3. To organise and sponsor training programmes, study courses, lectures, meetings, workshops, seminars, conferences and symposia either on its own or jointly or at the instance of other persons and entities
4. To engage in capacity building among the regulators and its stakeholders based on research inputs.

Knowledge management:

1. A specialised vehicle for developing a knowledge base which could be used by the Institute and the nation as such
2. Prepare and publish, either on its own or through or in collaboration with other persons and entities, papers, periodicals, magazines, books, journals
3. Create and maintain a world-class store house of knowledge and information with a state of art electronic database and exchange facilities

Knowledge Exchange & Capacity Buiding:

1. To network and collaborate with organisations of national and international repute, persons of eminence in the relevant field
2. Serving as a role model for other institutions in and outside India to enhance the quality of interaction in within regulators and between regulators and their stakeholders

5. Structure of the proposed Institute

As the purpose of the proposed Institute is to cater to the research, knowledge, resources and expertise needs of the regulators and as all the regulators are government entities, we analysed the following options to evaluate how the Institute needs to be legally constituted.

Of the two Institutes considered in India, namely ARF (under ICAI) and NISM (under SEBI), it may be noted that:

1. ARF is registered section 25 company (not for profit)
2. NISM is registered as a Trust

The regulators could consider registering the Institute as a section 25 company for this purpose. The source of funds and nature and extent of expenses to ensure the sustainability of the Institute are discussed separately under the section on commercial aspects.

As a research Institute, there is a need for:

1. **Board of Governors:** The board will be responsible for governing and the overall functioning of the Institute
2. **Faculty:** Faculty will carry out research and impart knowledge through various modes
3. **Management team and administrative staff:** Their responsibilities include the day to day management and operations of the Institute – This will also include the support functions of Finance & Accounts, IT, Human Resources, Library & Information Services etc
4. **Advisory Council:** To provide expert guidance and to provide inputs to the board and to the faculty on subject matters, course content, pedagogy, areas of research, nature of research, the advisory council may also have to provide inputs on the qualification and selection of experts and faculty who are recruited by the Institute / faculty (by being included in the selection panel, as may be decided by the Board).

The composition and structure of the other Institutes studied as part of this study are provided in the Appendices of this document for reference.

6. Human Resources aspects

After the structure, roles and responsibilities and manpower requirement are defined for the various positions in the Institute across levels and functions, the next step is to define the technical and behavioral competencies, skills, qualifications, nature of experience and background required for each of the positions.

This shall not only form the basis for recruitment and selection, but also become the benchmark or reference point for their training and developmental needs. i.e. for building the internal capability of the Institute.

The Appendices in this document provide some of the details of profiles of staff in the Institutes that have been considered for this study.

It is important for the proposed Institute to define its positions (posts), and then subsequently arrive at the profile requirements of each post based on their responsibilities and performance areas.

Talent Management:

The proposed Institute needs to be able to attract and retain talent at the highest level. As a Research Institute, the profile of people recruited should be those with a passion for the intellect. In most cases, we have observed that monetary benefits such as compensation, variable pay etc are not the primary drivers for talent attraction and retention. Having stated that, the Research Institute should be able to pay on par with the premier Research and Educational Institutes in the country such as Indian Council for Research on International Economic Relations (ICRIER), National Council for Applied Economic Research (NCAER), NISM, Tata Institute of Fundamental Research), Indian Institutes of Science, Technology, Management (IISc, IITs, IIMs) etc.

However, more important, the Institute should provide an enabling environment for its staff through quality office and residential infrastructure and their maintenance, a campus which typifies a premier Institute in the country, adequate funding to carry out research projects etc.

7. Infrastructure aspects

The Institute requires the infrastructure facilities such as building, training rooms, conference halls, faculty rooms, library facilities, computer facilities, hi speed internet access, video conferencing facilities etc.

We propose that initially, the forum ties up with an existing educational institution for the premises of the proposed Institute and in course of time, the forum may choose to build its own infrastructure based on fund availability.

The NRRI in USA under NARUC was located inside Ohio State University while NISM and ARF have dedicated infrastructure already in place.

The forum needs to explore the option of obtaining funds through grants / technical assistance from international funding agencies (multilateral / bilateral) such as the World Bank / IFC, ADB, DFID, JICA, USAID etc who have funded and continue to fund several projects in the Power sector in India as part of various reforms and capacity building related programs.

8. Commercial aspects

In order to sustain in the long run and to ensure the Institute's objectives are adhered to, it is important for the Institute to be financially viable and self sustaining in the long run.

We have observed that the sources of funds for the other Institutes (NISM & ARF) are primarily through research project fees or through course fees for running the respective programs.

NRRI receives its funds primarily from voluntary dues paid by State Commissions. Funding also comes from contract services (performed for federal, state and foreign governmental units, as well as private industry) and foundations.

We believe that the Institute should also build its own revenue stream through the following modes:

1. Fees charged for carrying research projects, specific assignments for / on behalf of
2. Consultancy fees charged
3. Fees for providing expert professionals
4. Participant fees / candidate Fees for training / running programs

Exemption:

The proposed Institute needs to avail tax exemption by being recognised as a Scientific And Industrial Research Organisations (SIROs) under section 35(i) of the Income Tax Act 1961 by the Department of Scientific and Industrial Research under the scheme on Recognition of Scientific and Industrial Research Organisations (SIROs) – 1988.

ICAI's Accounting Research Foundation has been recognized as a Scientific and Industrial Research Organisations (SIROs) and is availing this exemption.

Appendix A: National Regulatory Research Institute, USA

1. About NRRI & Background

The need for an Institute arose from the fact that, regulators required products of research based on facts, objective analysis, and independence. Regulators were faced with new interest groups, accelerated technological change, higher customer expectations, lower investor patience, and growing instability in corporate and market structures etc. In addition, the state regulatory commissions were underfunded and understaffed relative to their responsibilities.

NRRI was founded in 1976 by the by the National Association of Regulatory Utility Commissioners (NARUC) and housed at The Ohio State University through 2007. NRRI's original design reflected dual demands: supporting commission policymaking while satisfying university standards.

As an independent, nonprofit corporation supported by state commission dues payments, it will adhere to these historical requirements of political relevance and academic rigor.

2. Key activities

In order to ensure that the commissions are proactive and a step ahead, the NRRI focuses on the following four priority activities:

1. **Identify regulatory challenges, both current and future:** In each of the industry sectors electricity, gas, telecommunications, water, multi utility NRRI's section chiefs will lead a process of continuous issue identification. They will tap the thinking of the 50 state commissions (at the Commissioner and staff levels), NARUC committees, federal regulators, practitioners, legislative staff, academics and grantors. This process will produce, for each industry sector, an always existing, regularly refreshed research agenda, publicly available for comment on NRRI's web site
2. **Create the new knowledge necessary to meet current and future regulatory challenges:** Informed by the issue identification process, NRRI will perform and stimulate the original research necessary to ensure the quality of utility regulation. NRRI will produce research products that enable readers to reach their own conclusions. The process of fact gathering, fact sifting, analysis and reasoning are neutral and transparent.
3. **Democratization of access to existing knowledge:** This refers to the process by which experts instill existing knowledge in non experts.
4. **Opinion leadership on the quality of regulation:** The regulatory community should focus as much on its own performance as it does on utility performance. NRRI's research reports and services will carry out NRRI's mission of regulatory effectiveness.

3. Accountability to the State Regulatory Community

NRRI's primary funding comes from voluntary dues paid by state commissions. Other funding comes from contract services (performed for federal, state and foreign governmental units, as well as private industry) and foundations. While corporately independent, NARUC and NRRI are linked in multiple ways to ensure accountability. NRRI's formation and its dues structure were approved by NARUC's Board of Directors. NRRI's bylaws were approved by the NARUC Board's Executive Committee. State commissioners constitute a majority of NRRI's Board. NARUC's Executive Committee receives regular reports on NRRI from its Second Vice President, who is an ex officio member of NRRI's Board. The NARUC Board's Education and Research Subcommittee evaluates NRRI's performance. NARUC's chief financial officer is an ex officio member of the audit committee of NRRI's Board.

4. Academic Ties

NRRI has been well served by its 30 year academic connections to The Ohio State University. Two NRRI studies issued in early 2008 are authored by professors from OSU and from Ohio University. NRRI is in discussions with nine other universities about specific projects as well as broader relationships to involve professors and students in our work.

5. Organisation Structure

The top level structure of NRRI consists of a Board of Directors, research experts and in addition staff from the EISPC (Eastern Interconnection States Planning Council).

The EISPC staff consists of a Director and an economist. The research experts (Principals) are in the following disciplines:

- Telecommunications Research & Policy
- Natural Gas Research & Policy
- Water Research & Policy
- Research Analyst & Technology Manager

The current Board of Directors are:

Name	Position
Philip B. Jones Chair, NRRI Board of Directors	Commissioner, Washington Utilities and Transportation
Betty Ann Kane Vice Chair, NRRI Board of Directors	Chairman, District of Columbia PSC
William Nugent Treasurer, NRRI Board of Directors	Executive Director, New England Conference of Public Utilities Commissioners
Charles D. Gray Ex officio	Executive Director, NARUC
Eddie Roberson Chair NARUC Subcommittee on Education and Research	Director, Tennessee Regulatory Authority
Brandon Presley	Commissioner, Mississippi PSC
Arnetta McRae	Chair, Delaware PSC
Carlito Caliboso	Chairman, Hawaii PUC

Appendix B: Accounting Research Foundation – ICAI, India

1. About ARF & Background

Accounting, financial reporting and auditing are considered to be the corner stones for ensuring probity and propriety in financial transactions, and achieving higher level of transparency in the management of Indian economy, trade and industry. Globalisation and ever increasing need for better governance, in government and non-government sector, created an exigency for the ICAI to establish an academy of excellence in the fields of accounting, auditing, financial management and economics. ICAI is a regulatory body. Since the future of the profession depends much upon its ability to respond quickly to emerging needs of the users and the potential users of the services of the profession, a need was felt for a specialised vehicle for developing a knowledge base which could be used by the Institute and the nation as such. As a result, ICAI decided to create an academy which could meet the exigency created by the changing scenario of the Country.

The Institute of Chartered Accountants of India, set up under an Act of Parliament – The Chartered Accountants Act, 1949, set up ICAI Accounting Research Foundation (ICAI-ARF) in January 1999 as a Section 25 company – a core research body in the areas of accounting, auditing, capital market, fiscal policies, monetary policies and other related disciplines.

Since then, ICAI-ARF has undertaken many projects involving basic and applied research. ICAI ARF believes that proper research inputs are necessary condition for raising the level of corporate governance, management, accounting and financial reporting. High quality research projects would also, needless to mention, provide valuable inputs in formulation of policies and implementation thereof at macro and micro levels.

The vision of the ICAI Accounting Research Foundation is to develop quality pronouncements, documents, research paper on the subjects of accounting, auditing, etc.

2. Objectives

1. To establish itself as an “academy” of international standard for the purpose of imparting, disseminating, spreading and promoting knowledge learning, education and understanding in the fields of accounting, auditing, fiscal laws and policy, corporate and economic laws and policies, economics, financial management, financial services, capital and money markets, management information and control systems, management consultancy services and allied disciplines. It would be similar to Institutions like National Council for Applied Economic Research (NCAER), Tata Institute of Fundamental Research (TIFR) and similar premier institutions of research. The Foundation would focus on fundamental and applied research in the fields mentioned above. All the activities of the Foundation would be reinforcing and research shall be the nucleus of all the activities. For this purpose, the ICAI ARF shall:
 - a) Undertake, promote and provide facilities for prosecuting core, fundamental, empirical, applied and other kinds of research work and projects and studies. It may also consider networking and collaboration with the organisations of national and international repute, persons of eminence in the relevant field.
 - b) Organise and sponsor training programmes, study courses, lectures, meetings, workshops, seminars, conferences and symposia either on its own or jointly or at the instance of other persons and entities.
 - c) Prepare and publish, either on its own or through or in collaboration with other persons and entities, papers, periodicals, magazines, books, journals
 - d) Create and maintain a world-class store house of knowledge and information with a state of art electronic database and exchange facilities.
 - e) Support the technical activities of the Institute of Chartered Accountants of India by carrying out field studies and researches similar to those being carried out by

Financial Accounting Standards Board (FASB) in the United States of America and the Accounting Standards Board (ASB) in the United Kingdom.

2. The Foundation will provide education, organise training programmes, courses and classes for academic vocational and competitive examinations
3. The Foundation will award, Institute, and grant scholarships, and other forms of financial assistance for facilitating research work
4. The Foundation will also undertake research projects in specialised areas sponsored by national and international bodies. It may also carry on researches in areas that have multi-disciplinary dimensions in collaboration with other research bodies and educational institutions
5. The Foundation will also support the international and regional level accountancy and auditing bodies like Confederation of Asian & Pacific Accountants (CAPA), International Federation of Accountants (IFAC), International Accounting Standards Committee (IASC), South Asian Federation of Accountants (SAFA) etc., in their technical activities.

3. Organisation and People

The Board of ARF consists of 11 Members– all distinguished people – Cas

According to the vision document of ARF, the organisation is divided into three separate divisions, namely,

- Research Department
- Accounts and Compliances Department
- Administrative Department

ARF intends to appoint renowned faculty from within the country and possibly from abroad also, commensurate with other research bodies. The faculty would also undertake in-house research on subjects which are of importance to the accountancy profession or those referred to the ICAI ARF by the ICAI itself. The faculty would be involved in guiding the outside researchers, where required, throughout the period of the project with a view to ensure that the outcome of the result is of high quality.

The Board of ICAI – ARF has decided to Institute research chairs on the topics of high relevance, for example, Accounting and Accountability in Government, Corporate Governance, Financial Reporting, Corporate Social Reporting, Environmental Accounting, Audit Committees etc. The scope and horizon might vary depending upon the need and relevance of specific industry or the sector of the economy. To begin with, ICAI –ARF has decided to set up three chairs.

4. Research

Recognising the fact that considerable efforts are required to promote research in the field of accounting in India, ICAI ARF has taken a number of proactive measures for undertaking applied research, and carrying out research studies. The ICAI ARF would further intensify promotional campaign for establishing direct contact with the Universities and other bodies on the one hand, and reaching out to the potential researchers throughout the country, on the other.

The list of proposed research projects of contemporary national and international significance and proposed research projects for PhD degree would be further expanded, and expression of interest invited. In selected areas, ICAI ARF may directly undertake research. Possibilities for networking with research organisation of repute, within and outside India would be explored. Series of technical documents are proposed to be published and focussed training programmes organised for dissemination of technical knowledge and skills to various stakeholders.

Initiative for applied research in newer areas including already initiated with the office Department of Posts on the lines of those taken up under MCD, KMC and CGA projects would also be considered, because they provide good base for applied research.

Project related to implementation of IFRS in NHPC Limited: To further promote the applied research, ICAI ARF has undertaken a project in NHPC Ltd. for implementation of International Financial Reporting System (IFRS) in its Organization. A consultant team has been appointed by ICAI ARF to undertake the said project. The team comprises of a team leader, an assistant team leader and two more team members. The team has already submitted the project management report (PMR) to NHPC Lt. and now it is working on the Impact Analysis stage.

5. Exemptions

Recognition Of Scientific And Industrial Research Organisations (SIROS): ICAI Accounting Research Foundation has been recognized as a Scientific and Industrial Research Organisations (SIROs) under section 35(i) of the Income Tax Act 1961 by the Department of Scientific and Industrial Research under the scheme on Recognition of Scientific and Industrial Research Organisations (SIROs) – 1988.

6. Infrastructure aspects

The ICAI ARF had acquired land from Jaipur Development Authority for setting up of University. An amount of Rs. 5,54,69,619/- was paid to Jaipur Development Authority by ICAI on behalf of ICAI ARF. The aforesaid project was later on dropped pursuant to the stand taken by the Ministry of Corporate Affairs, Government of India. Subsequently, the Government of Rajasthan had cancelled the land allotted to ICAI ARF for setting up of University and instead, allotted 25 acres of land to ICAI itself for setting up of Centre of Excellence at village Chosala, Tehsil Chaksu, District Jaipur at 50% of DLC rates. Accordingly, an amount of Rs. 2,84,19,519/- has been refunded by Jaipur Development Authority after adjusting Rs.70,00,100/- payable towards the land allotted to ICAI out of Rs.3,54,19,619/- paid towards the land earlier allotted to ICAI ARF. The balance amount of Rs.2 crore along with the interest accrued amounting to Rs. 39 lakhs was recoverable from Jaipur Development Authority as on 31st March 2009. In the month of June 2009, the amount of Rs.2.39 crore has been received from Jaipur Development Authority. And the same amount has been given to ICAI towards Building Reserve Fund.

In order to strengthen the infrastructure base, ICAI ARF had taken an area of 20,000 sq. ft. in the Research Block, A-29, Sector-62, Noida, U.P. on sub-lease for a period of ten years from the Institute of Chartered Accountants of India on annual lease rental of Rs. 5,000/- along with Rs.5,00,00,000/- (Rs. 5 Crore only) payable towards the acquired built up space and the proportionate cost of construction, furniture and fixtures, installation and interiors thereof.

7. Commercial aspects

The income / revenue is primarily from research projects (Rs. 25.94 lacs in FY 10) and subscription from members (Rs. 1,80,000 in FY 10), interest from existing reserves and Grant (Rs. 10 lacs in FY 10). As a not for profit company, the income is spent on the operating expenses or accumulated as reserves.

Appendix C: National Institute of Securities Markets, India

1. About NISM and background

National Institute of Securities Markets (NISM) is a public trust, established by the Securities and Exchange Board of India (SEBI), the regulator for securities markets in India. It is located in Navi Mumbai, India.

NISM seeks to add to market quality through educational initiatives. It is an autonomous body governed by its Board of Governors. An international Advisory Council provides strategic guidance to NISM.

Vision: To lead, catalyze and deliver educational initiatives to enhance the quality of securities markets

Mission: To engage in capacity building among the stakeholders in the securities markets through financial literacy, professional education, enhancing governance standards and fostering policy research

Belief: NISM envisions a catalytic role in promoting securities markets research and education, through:

- Close interface with policy makers and regulators
- Continuous knowledge creation and dissemination
- Enabling stakeholders to enhance knowledge, skill and awareness through research based inputs
- Serving as a role model for other institutions in and outside India to enhance the quality of interaction in securities markets.

NISM consists of six different schools as follows:

School	Details
School for Investor Education and Financial Literacy (SIEFL)	<p>NISM is keen to enhance the levels of financial literacy in India. There are three programmes in NISM that address financial education:</p> <ul style="list-style-type: none"> • Financial Literacy Programmes through schools: NISM intends to introduce financial education in schools through the Pocket Money program. Currently the program covers more than 4300 children from 32 schools across North, South and East India. The program is in the process of being introduced in the schools in the Western region. Read More.. • Investor Education through Web based delivery: NISM has introduced a dedicated website for Investor Education. The site is live in its Beta mode. Investorfirst.in aims to empower individuals with right knowledge and tools that will help them make wise investment decisions and long term wealth
School for Certification of Intermediaries (SCI)	<p>The School for Certification of Intermediaries (SCI) at NISM is engaged in developing certification examinations for professionals employed in various segments of the Indian securities markets. These examinations are being developed by NISM as mandated under SEBI (Certification of Associated Persons in the Securities Markets) Regulation, 2007.</p>
School for Securities Information and	<p>SSIR undertakes several initiatives that seek to support research in securities markets.</p>

School	Details
Research (SSIR)	<p>Network for Securities Markets Data:</p> <p>The Network for Securities Markets Data (NSMD), a project undertaken by the SSIR, will act as a single point access to Indian securities markets related data and will boost the research and analysis activities on Indian securities markets.</p> <p>Conference on Securities Markets 2008:</p> <p>SSIR conducted the prestigious Conference on Security Markets (ICICI) in December 2008. Nobel laureate, Prof. Robert Engle from New York University graced the occasion. The conference also witnessed participation of top academicians from across the world. Simultaneously, SSIR conducted the Research Workshops for faculty members and doctoral students.</p> <p>A number of commissioned research studies have also been undertaken.</p>
School for Regulatory Studies and Supervision (SRSS)	<p>SRSS organizes executive education for officers of SEBI, stock exchanges, government officers, depositories, capital markets division of the ministry and participants of capital markets from other jurisdictions including SAARC nations and IOSCO nations.</p> <p>SRSS also initiated training programmes for Internal Auditors of Stock Brokers. SRSS organizes round table for mutual fund trustees.</p> <p>The school has also undertaken a project "Securities Market Simulator" which simulates the working of securities markets to facilitate training and research activities on Indian markets.</p>
School for Corporate Governance (SCG)	<p>SCG conducts workshops and round table conferences in matters pertaining to Corporate Governance and has undertaken many initiatives for capacity building in the corporate governance space.</p> <p>SCG's strategy in fostering good corporate governance is three-pronged:</p> <ul style="list-style-type: none"> • Generate a body of knowledge that is relevant and effective. • Use the knowledge to inform the players about the principles/methods of good corporate governance • Take recourse to demonstration effect to convince the corporate sector about need for good governance <p>In collaboration with Confederation of Indian Industry (CII) and Global Corporate Governance Forum (GCGF), SCG has organized Business and Investor Dialogue, Board Leadership Workshop, Round Table Conference on "Corporate Governance in India – A Reality Check" and Corporate Governance Workshop for Media Persons. The workshops for Board of Directors, to be held across cities in India, are expected to begin in November in Mumbai.</p>
School for Securities Education (SSE)	<p>Within the framework of the vision and mission of NISM, the role of SSE is to provide education preparing competent professionals who will serve the securities markets.</p> <p>Securities Markets play an increasingly vital role in national and international economic development. The Indian securities markets have grown in depth,</p>

School	Details
	<p>width and sophistication. Indian corporations are increasingly attracting domestic and foreign investment through listings in India and overseas. The Indian stock exchanges, clearing corporations, depositories, mutual funds, merchant bankers, analysts and stock brokers are expected to meet the enhanced expectations of various stakeholders. This necessitates a wide repertoire of knowledge and skills.</p> <p>SSE is uniquely positioned to provide the necessary inputs and to create the new age securities markets professionals. With its proximity to policy makers and professionals in the securities markets community, the educational programmes from SSE are infused with this innovation and dynamism.</p> <p>SSE is offering two certificate programmes as listed below:</p> <ul style="list-style-type: none"> • Post Graduate Programme in Securities Markets (PGPSM) • Certificate in Financial Engineering and Risk Management (CFERM)

2. Organisation & People

Name	Title
Board of Governors	
Mr. U.K.Sinha	Chairman SEBI (Chairman - Board of Governors)
Mr. Prashant Saran	Whole Time Member, SEBI
Dr. K. P. Krishnan	Secretary to Economic Advisory Council to the Prime Minister, GoI
Mr. P.K.Nagpal	Executive Director, SEBI
Mr. Uday Kotak	Vice Chairman & Managing Director, Kotak Mahindra Bank Ltd
Ms. Chanda Kochhar	Managing Director & Chief Executive Officer, ICICI Bank
Mr. R. M. Malla	Chairman & Managing Director, IDBI Bank Ltd
Dr. Anil Khandelwal	Former Chairman of Bank of Baroda
Mr. M.S.Sahoo	Advocate
Academic Council	
Dr. Pritam Singh	Director General, International Management Institute (IMI), New Delhi
Prof. R. Vaidyanathan	Professor of Finance, Indian Institute of Management, Bangalore
Dr. Sanjay Kallapur	Senior - Associate Dean, Faculty and Research, ISB, Hyd
Dr. Ajay Shah	Professor, National Institute of Public Finance and Policy, New Delhi
Faculty	
Prof. Sunder Ram Korivi	Dean, School for Securities Education

Name	Title
Dr. Rachappa Shettewar	Associate Professor
Dr. K Kiran Kumar	Assistant Professor
Dr. Poonam Mehra	Assistant Professor
Mr. Akhlaque Ahmad	Lecturer
Ms. Shobana Balasubramaniam	Academic Associate
Senior Management	
Mr. M. L. Soneji	Registrar
Mr. K Sukumaran	Dean - School for Investor Education & Financial Literacy
Mr. Paritosh Sharma	Consultant – School for Certification of Intermediaries
Mr. V. G. Bhagat	Senior Vice President (Legal Compliance & vigilance)
Mr. Narayana Maddala	Senior Vice President (ICT)
Ms. Shyamala Sashikumar	Senior Vice President (E- Initiatives & HR)
Mr. Nitin Tike	Senior Vice President (Financial Literacy)
Mr. Jitender Aggarwal	Vice-President (Estates)
Mr. S. Venkatesh	Vice-President (HR)
Mr. Deven Shah	Consultant – Marketing & Communications
Mr. A S Ramayya	AVP (Programs)
Mr. A V Sankar	AVP (Finance & Accounts)

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