

The Information Handbook under Right to Information Act, 2005



Broadcast Engineering Consultants India Limited
(BECIL)

Registered and Corporate Office:

C-56/A-17, Sector 62, NOIDA - 201301

Phone: 0120 - 4177850 Fax: 0120 - 4177879

Email: rticell@becil.com Website: www.becil.com

Updated in the month of April 2016

Contents

Chapter No.	Topic	Page No.
1.	Introduction	3 - 6
2.	Particulars of Organization,	7 - 12
3.	Rules, Regulations, Instructions, Manual and Records, for Discharging Functions.	13 - 14
4.	A statement of the categories of documents that are held by it or under its control	15 - 20
5.	A Statement of boards, council, committees and other bodies constituted as its part	21 - 23
6.	The names, designation and other particulars of the Central Public Information Officers	24 -26
7.	Procedure followed in Decision-Making Process	27 -28
8.	Directory of Officers & Employees	29 - 30
9.	Frequently Asked Questions and their Answers.	31 - 35

Chapter 1

(Introduction)

1. Introduction

1.1 Background of the Right to Information Act, 2005

- The Lok Sabha on 11th May, 2005 and the Rajya Sabha on 12th May, 2005 passed the Right to Information Bill, 2005. It received the assent of the President on 15th June, 2005.
- This Information Handbook (Version 1.0, 2005) has been prepared in compliance to the Right to Information Act, 2005 coming into force w.e.f. 12 October, 2005.
- The basic purpose of the Act is to secure for the citizens, access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority.
- The Broadcast Engineering Consultants India Limited (BECIL) is a 'Public Authority' under Section 2(h)(d)(i) of the Right to Information Act, 2005.
- As a Public Authority, the BECIL, through this Information Handbook, lays down required guidelines thereby endeavoring to fulfill all its obligations under the Act.

1.2 Objective/Purpose of this handbook

- The main objective of this handbook is to facilitate the public to have access to information in different forms, which is available under the control of the BECIL.

1.3 Users of this handbook

- Members of the public, stakeholders and Staff of the Company are the intended users of this handbook.

1.4 Organization of the information in this handbook

This handbook has 9 Chapters. The details are given as under:

Chapter	Topic
1	Introduction
2	Particulars of Organization,
3	Rules, Regulations, Instructions, Manual and Records, for Discharging Functions.
4	A statement of the categories of documents that are held by it or under its control
5	A Statement of boards, council, committees and other bodies constituted as its part
6	The names, designation and other particulars of the Central Public Information Officers
7	Procedure followed in Decision-Making Process`
8	Directory of Officers & Employees
9	Frequently Asked Questions and their Answers.

1.5 Definitions of various terms used in the handbook

Definitions of various terms used in this handbook are given as follows:

- (i) "Act" means the Right to Information Act, 2005 (22 of 2005);
- (ii) "Company" means the Broadcast Engineering Consultants India Limited (BECIL);
- (iii) "Applicant" means the person who submits application to the Company;
- (iv) "CIC" means the Central Information Commission as constituted under sub-section (1) of Section 12 of the Act;
- (v) "First Appellate Authority" means an officer in the Company who is senior in rank to the Central Public Information Officer to whom an appeal under sub-section (1) of section 19 lies;
- (vi) "Government" means the Central Government;
- (vii) "Section" means a section of the Act;
- (viii) All other words and expression used herein but not defined in the rules shall have the same meanings assigned to them in the Act.

1.6 Contact person in case somebody wants to get more information on topics covered in this handbook as well as other information also

The following officer of the Company may be contacted in case of more information

Sl. No.	Name & Designation	Phone Nos.
1.	Shri D.R. Gogoi, General Manager	0120-4177850
2.	Shri V.P. Singh, Dy. General Manager	
3.	Shri Awadhesh Pandit, (AGM, F&A / Admn.)	0120-4177850
4.	Shri Mahesh Chand, AGM (HR)	0120-4177850

1.7 Procedure and Fee Structure for getting information not available in the handbook.

The normal questions that may arise in the mind of General Public have been posted on the BECIL Website (www.becil.com) in the form of Frequently Asked Questions.

Alternatively, persons desirous of obtaining any information not available in the handbook may send their request in writing addressed to the Central Public Information Officer (CPIO-Coordination), BECIL Bhawan, C-56/A-17, Sector 62, Noida 201301 (U.P.) or mentioned in above list.

The Fee structure based on the Right to Information (Regulation of Fee & Cost) Rules, 2005 notified by the Government of India dated 16th December, 2005 are given as under:

Application Fee	: Rs.10/
A3/A4 Size Paper (created or copied)	: Rs.2/per page
Copy in larger size paper	: Actual charge or cost
Samples or models	: Actual cost
Information in Floppy/Diskette	: Rs.50/per Floppy/Diskette
Printed material	: Cost of printing or @ Rs.2/per page of photocopy for extracts from the publication
Inspection of records	: No fee for the first hour, and a fee of Rs.5/for each fifteen minutes (or fraction thereof) thereafter.

To obtain information, prescribed fees by way of cash against proper receipt or by Demand Draft / Bankers Cheque / Indian Postal Order may be sent in favour of "BROADCAST ENGINEERING CONSULTANTS INDIA LIMITED payable at DELHI".

Chapter 2

(Particulars of Organization)

2. Particulars of Organization, Functions and Duties

2.1 Brief history of the Company and context of its formation

Broadcast Engineering Consultants India Limited (BECIL) an ISO 9001:2008 certified, Mini Ratna, public sector enterprise of Government of India under Ministry of Information & Broadcasting was established on 24th March, 1995 for providing consultancy services of international standards for broadcasting in transmission and production technology including turnkey solutions in the specialized fields of Terrestrial & Satellite Broadcasting, Cable and various IT related fields, including acoustics & audio-video systems.

BECIL also undertakes operation and maintenance of broadcast stations of all types and descriptions. BECIL has a pool of in-house expertise and vast reservoir of experts drawn from various fields in broadcasting. It has been constantly improving its skills to keep itself abreast with the latest technology. In addition to the projects operation and maintenance of broadcast systems, BECIL also provides training and undertakes placement of technical manpower and experts to various departments in India for development as well as operation of broadcasting set up of all types.

BECIL client list includes Government, Semi Government, Overseas and Private organizations. It has many firsts to its credit like establishment of first teleport in India, first to establish infrastructure, first to set-up multi channel FM transmission in India combining up to 7 FM channels at Bengaluru, first to design and establish HDTV studio set-up for Presidential Secretariat and Lok Sabha TV, to name a few.

2.2 Objective/Purpose of the Company

BECIL was established in March 1995 under the control of Ministry of Information & Broadcasting. Government of India, for providing engineering, technical and management services in India and abroad. This encompasses project planning, execution and operation / maintenance relating to sound studios, TV studios, Radio and TV transmitters satellite links, cable TV Broadcast systems and other related activities including training, and other value added services.

Apart from the above charter, BECIL envisages to fulfill following additional objectives related to organizational priorities and work ethics:

- ❖ To enhance the present share in the market by providing specialized and customized solutions to a wider range of clients.
- ❖ To provide technical input and consultancy to Ministry of Information & Broadcasting in policy, regulatory & formulation of various papers pertaining to Broadcasting.
- ❖ To explore the opportunities in overseas market.
- ❖ To conduct market survey for product development.
- ❖ To establish satellite uplink & downlink systems for TV channels & Distance Education Centers.
- ❖ To establish and maintain the operation of broadcasting centers.
- ❖ To train & provide broadcast professionals
- ❖ To design, develop and manufacture specialized broadcast equipments.

2.3 Vision/Mission Statement of the Company

- ❖ To be a world class consultancy organization recognized as a “BRAND” in the specialized fields of Broadcast Engineering & Information Technology and infrastructure development for total project solution in India and Abroad.
- ❖ To play a pivotal role in modernization and growth of radio and television broadcasting through terrestrial, cable and satellite transmission in India and abroad, and achieve excellence.

2.4 Duties of the Company

- (i) To perform all its activities in a transparent manner.
- (ii) To act impartially without, prejudice to, and pressure of any external factors.
- (iii) To provide turnkey solutions in the field of Broadcast Engineering.

2.5 Main activities/functions of the Company

- To be committed to users and provide them with cost effective, high quality solutions and services.
- To engage in R&D and share the expertise with other R&D organizations engaged in the area of Information Technology.
- To develop state-of-the art technology products and services in the field of broadcasting.
- To develop an organization where creativity and innovation thrive and where all staff are enabled to realize their full potential in an atmosphere of trust, goodwill, empathy and mutual respect for each other.
- To nurture and strengthen a participative work culture and evolve a decision-making process in which all staff play a meaningful role.
- To develop a congenial social, cultural and aesthetic environment in the Company and in society at large.
- To uphold financial propriety, discipline and viability in the operations of the company.

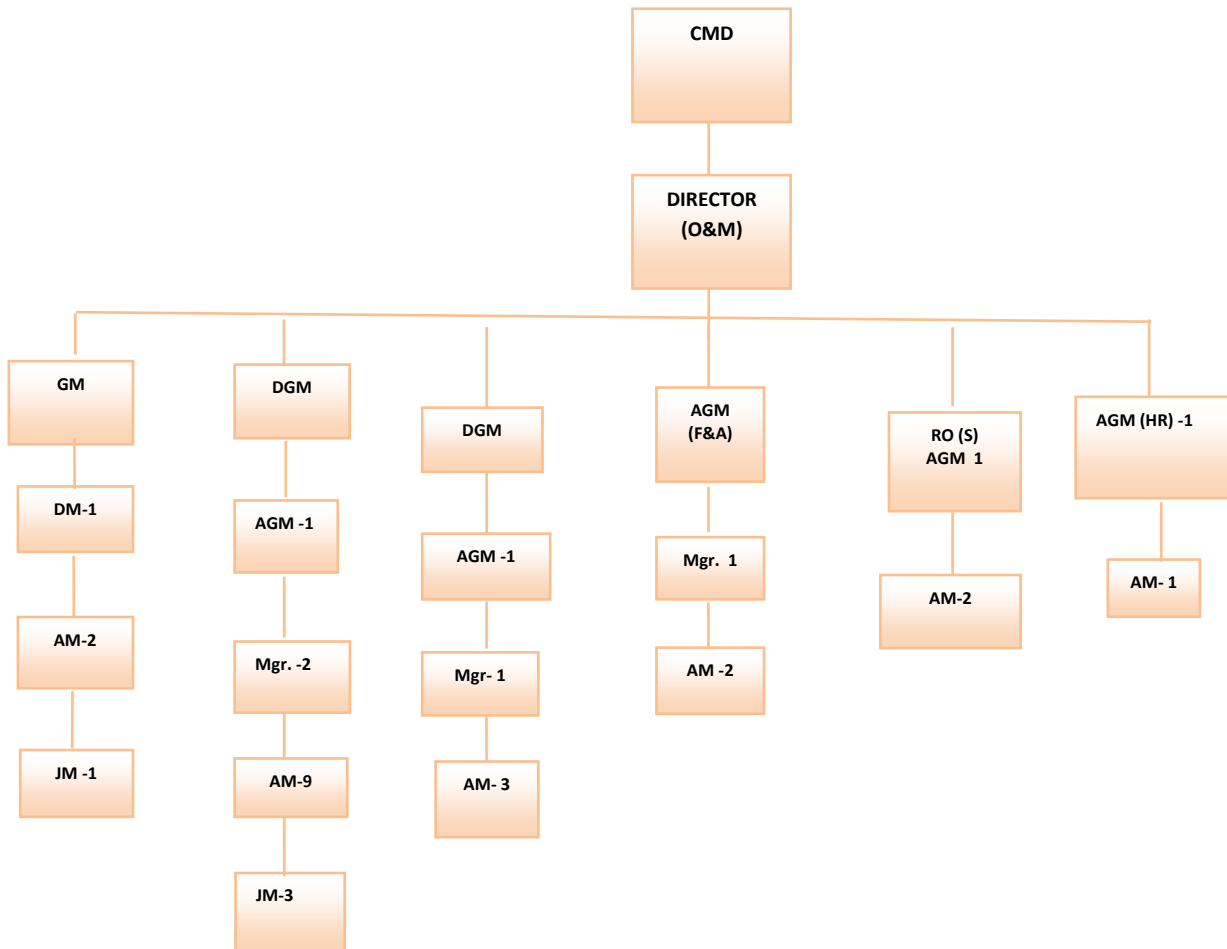
2.6 List of services being provided by the Company with a brief write-up on them

BECIL is the professional platform which caters to all aspects of TV and Radio projects from concept to completion and from regulatory to realization. BECIL services are reliable and transparent (no hidden cost). Adding on to this, BECIL is proud to be an able interface to the government. We believe in providing perfect professional solutions. We specialize in –

- Establishment of FM Radio Stations
- Satellite Systems
- Terrestrial Transmitters
- International Sports Production
- Launch of TV Channels
- Wireline Broadcasting
- FM Broadcasting
- Establishment of TV Channels
- Installation of Teleports
- Design of Digital Newsroom Systems
- DTH (Direct to Home) system
- Conformity of Wireline Broadcasting networks to Indian standards
- Distance Education Systems through Satellite
- Community Radio Stations
- Acoustics, Stage lighting, sound reinforcement system
- Training/upskilling in wireline networking

2.7 Organizational Structure

Present Organisational Structure of BECIL.



Total No. of Officers: 37

2.8 Addresses of the Head Office and other offices of the Company

Head Office:

Broadcast Engineering Consultants India Limited,
14-B, Ring Road, I.P. Estate, New Delhi-110002
Phone: 011-23378823
Fax : 011-23379885

Registered and Corporate Office:

Broadcast Engineering Consultants India Limited,
C-56/A-17, Sector 62, Noida 201301 (U.P.)
Phone: 0120-4177850
Fax: 0120-4177879

Regional Office:

Broadcast Engineering Consultants India Limited
Regional Office: A#7, Ranka Villa, Opposite to Ranka Colony,
Bilekahalli, Off Bannerghatta Main Road, Bangalore, 560076
Telefax: +91-80-26685853

Morning hours of the office : 9.30 A.M.
Lunch hour : 1.30 P.M. to 2.00 P.M.
Closing hours of the office : 6.00 P.M.
(5 days a week from Monday to Friday – Saturday & Sunday Off)

Chapter – 3

(Rules, Regulations, Instructions, Manual and Records, for Discharging Functions)

3. Rules, Regulations, Instructions, Manual and Records, for Discharging Functions

The list of rules, regulations, instructions, manuals and records available and used by employees for discharging functions are given below:

S.No.	Name/title of the document	Type of the Document (Rules, Regulations, Instructions, Manuals, Records, others	From where one can get a copy of rules, regulations, instructions, manual and records	Fee charged by the department for a copy of the document
1.	Recruitment, Promotion And Seniority Rules	Rules	Asstt. General Manager (HR/Admin) C-56/A-17, Sector 62, Noida 201301 (U.P.) Phone: 0120-4177850 Fax: 0120-4177879	
2.	Annual Performance Assessment Report	Rules	-do	
3.	Uniform Policy	Rules	-do	
4.	Leave Rules	Rules	-do	
5.	Encashment of Leave Rules	Rules	-do	
6.	Traveling Allowance Rules	Rules	-do	
7.	Leave Travel Concession Rules	Rules	-do	
8.	Medical Reimbursement Rules	Rules	-do	
9.	Welfare Schemes	Rules	-do	
10.	Death-Cum-Retirement Gratuity Rules	Rules	-do	
11.	Conduct, Discipline And Appeal Rules	Rules	-do	
12.	CSR Policy	Policy	-do	
13.	Whistle Blower Policy	Policy	-do	

Chapter – 4

(A statement of the categories of documents that are held by it or under its control)

4. A statement of the categories of documents that are held by it or under its control

The Department-wise official documents available and procedure to obtain those are given below:

4.1 Finance Department

Sl. No.	Category of the Document	Name of the document and its introduction in one line	Held by/under control of
1.	Finance Record	Annual Reports (1995-96 to 2012-13)	AGM (F&A)
2.	Memorandum of Understanding	Memorandum of Understanding between BECIL and Ministry of Information & Broadcasting. (A mutual agreement on various performance evaluation parameters and targets)	AGM (F&A)
3.	Corporate Services Files	Files relating to corporate matters of the Company	AGM (F&A)
4.	Memorandum & Articles of Association	Bye-Laws regulating affairs of the Company	AGM (F&A)
5.	Agenda/Minute Books of the Board Meetings & General Body Meetings	Agenda and Minutes of the Board Meetings and General Body Meetings of the Company	AGM (F&A)
6.	Correspondence Files	Contains correspondence with Administrative Ministry & DPE	AGM (F&A)
7.	Annual Audit Account File	Regarding Finance and Accounts	AGM (F&A)
8.	Corporate Services Registers	Attendance Registers of Board/General Body Meetings, Share Register, Share Capital Register, Members/ shareholders/Directors Register, Common Seal Register	AGM (F&A)
9	Medical Attendance Files of Officers & Employees	Contains individual medical claim details of employees	AGM (F&A)
10	Provident Fund and Pension File	Contains Provident Fund and Pension details of employees	AGM (F&A)

4.2 Personnel/Administration Department.

Sl. No.	Category of the document	Name of the document and its introduction in one line	Held by / under control of
1.	Service Rules of the Company	Approved rules governing service matters of employees	Asstt. General Manager (HR)
2.	Disciplinary Matters Files	Files relating to disciplinary matters of the Company	-do-
3.	Court Cases /Legal Matters Files	Files relating to legal matters of the Company	AGM (F&A)
4.	Vigilance Cases Files	Files relating to vigilance matters of the Company	AGM (HR)
5.	Personal files of Officers & Employees	Contains individual records of employees	-do-
6.	Performance Appraisal Files of Officers & Employees	Contains annual performance reports of employee	-do-
7.	Probation Reports Files of Officers & Employees	Contains probation reports of employees	-do-
8.	Reservation Roster	Contains reservation details	-do-
9.	Posting & Transfer Files	Contains details of posting & transfer of staff	-do-
10.	Leave Register (EL, Medical & CL)	Contains details of leave of employees	-do-
11.	Hindi Register	Regarding Hindi Work	-do-
12.	Hindi File	Qtrly. Report (Hindi)	-do-
13.	Service Books	Contains individual details of employees	-do-
14.	Leave Proceedings	Contains Individual details of employees	-do-
15.	Leave Application	Contains Individual details of employees	-do-
16.	Regional/Project Office Attendance	Regional/Project Office leave attendance	-do-
17.	RF ID-Card	Individual employees attendance sheet (computerised)	-do-

Sl. No.	Category of the document	Name of the document and its introduction in one line	Held by / under control of
18.	Recruitment Files	Contains recruitment and appointment process	-do-
19.	Pay Fixation of Employees	Contains information regarding fixation of pay employees on pay revision and appointment on promotion etc.	-do-
20.	Annual Increment Files	Contains information regarding grant of annual increment to employees as and when due	-do-
21.	Corporate Plan	Contains manpower planning positioning and strength of the Company	-do-

4.3 The information which can be permitted and which is required to be withheld

All information/documents can be provided to the public, except the following :

- (a) Information, the disclosure of which would prejudicially affect the sovereignty and integrity of India, security of the State, strategic, scientific or economic interest of India or conduct of international relations;
- (b) Information, the disclosure of which would prejudicially affect the conduct of Centre-State relations, including information exchanged in confidence between the Central and State Government or any of their authorities or agencies.
- (c) Information, the disclosure of which would prejudicially affect public safety and order, detection and investigation of an offence or which may lead to incitement to commit an offence;
- (d) The information relating to an individual or other information, the disclosure of which would constitute a clear and unwarranted invasion of personal privacy and has no relationship to any activity of the Company or which will not sub-serve any public interest;

The various documents which would be debarred from disclosures under this clause would be :

- Family details of staff members.
 - Any other information of personal nature about the employee.
- (e) Minutes or records of advice, opinions or recommendations made by an officers of the Company during the decision making process prior to the executive decision or policy formulation and the information, the disclosure of which may harm the competitiveness to third party, frankness of commercial nature, trade secret & intellectual property right shall not be disclosed till an executive decision is taken or policy is formulated.

The various documents which would be debarred from disclosures under this clause would be:

- Cabinet note on setting up of BECIL.
- Noting on official files- Inter and intra Departmental Correspondence.
- Correspondence with Ministries, Parliament and State Governments.

- (f) Information which would prejudicially affect fair trial or adjudication of a pending case or the proceedings of any tribunal, public inquiry;

The various documents, which would be debarred from disclosures under this clause would be:

- Files relating to ongoing court cases.
- Papers & files relating to appointment of Advocate and Legal Consultant.
- Files relating to presentation before Parliamentary Committees; Enquiry Commissions.
- Files relating to vigilance matters.
- Matters relating to affidavits and actions sub-judice.
- Draft comments of Statutory/Government Auditors and replies.

- (g) Information pertaining to service record of a person, annual confidential reports, leave records of staff members, appointments, promotions and security vetting.

- (h) Information which has been expressly forbidden to be published by any court of law or tribunal or the disclosure of which may constitute contempt of court.

- (i) Information the disclosure of which would constitute a breach of privilege of the Parliament or the State Legislature (or violation of an order of a competent court).

- (j) information including commercial confidence, trade secrets or intellectual property, the disclosure of which would harm the competitive position of a third party, unless the competent authority is satisfied that larger public interest warrants the disclosure of such information;

The various documents which would be debarred from disclosures under this clause would be:

- The files and correspondence pertaining to board related matters such as agenda of the board meeting, their deliberations, working papers and feedback reports.
- The files and papers concerning tender process including composition of Committee and allotment of contracts pertaining to the past periods, sought for reference by the 3rd parties.
- The files and papers concerning our tender, quote, rates being decided, Margins, etc.

- (k) Information available to a person in his fiduciary relationship, unless the Competent Authority is satisfied that the larger public interest warrants the disclosure of such information;

There shall be free access to all information excepting what is contained in clauses mentioned above. Subject to this provision, a Central Public Information Officer may reject a request for information where such request:

- Is of general in nature or is of such a nature that, having regard to the volume of information required to be retrieved or processed would involve disproportionate diversion of the resources of a Company or would adversely interfere with the functioning of such authority;
 - Provided that where such request is rejected on the ground that the request is too general, it would be the duty of the Central Public Information Officer to render help as far as possible to the person making the request to reframe his request in such a manner as may facilitate the supply of information
 - Provided that if the Company finds it difficult to furnish copies of the required information, the applicant shall be allowed to inspect the record and make notes in the manner and within such time as may be prescribed.
 - Provided that difficulties encountered by the authorities under this Act shall not be a ground for denial of access to information.
 - Provided it relates to information that is required by law, rules, regulations or order to be published at a particular time;
 - 1 Procedure.
 - 2 The detailed information on Boards, Councils, Committees and Other Bodies related
- (l) Minutes of Board, councils, committees and other bodies consisting of two or more persons including general meeting of the Company

To obtain any document from the Company, Public may write a letter to the Central Public Information Officer in the prescribed format.

Chapter – 5

(A Statement of boards, council, committees and other bodies constituted as its part)

5. A Statement of boards, council, committees and other bodies constituted as its part

The detailed information on Boards, Councils, Committees and Other Bodies related to the Company are given below:

5.1 Name and address of the affiliated Body

Broadcast Engineering Consultants India Limited (BECIL)
C-56/A-17, Sector 62, Noida 201301 (U.P.)
Phone: 0120-4177850
Fax: 0120-4177879

5.2 Type of Affiliated Body (Board, Council, Committees, Other Bodies)

BOARD OF DIRECTORS:

Functional Directors:

- 1) Shri George Kuruvilla, Chairman & Managing Director (), BECIL

Official Directors:

- 1) Shri Mihir Kumar Singh, JS (Policy & Admin)
- 2) Shri Vijay Kumar Choubay, CCA, MIB

5.3 The Affiliated Body (Establishment Year, Objective/ Main Activities)

Establishment Year: 24th March, 1995

Objective/Main Activities: To provide engineering, technical and management services in India and abroad. This encompasses project planning, execution and operation / maintenance relating to sound studios, TV studios, Radio and TV transmitters satellite links, cable TV Broadcast systems and other related activities including training, and other value added services.

5.4 Role of the Affiliated Body (Advisory/ Managing/ Executive/ Others)

The Board of Directors performs the executive role to ensure sound management and good governance. As a governing body, the Board of Directors is responsible for the governance of the Company, ensuring that the Company is being well run.

5.5 Structure and Member Composition.

Article 49 of the Articles of Association of BECIL provides that subject to the provision of Section 252 of the Companies Act, 1956 and until otherwise determined by the Company in a General Meeting, the number of Directors shall not be less than three and not more than nine. The Directors are not required to hold any qualifications shares. The first Directors shall be:

1	Functional Directors	2
2	Official Directors	2

5.6 Address of Head Office and its Project/Regional Offices.

Head Office:

Broadcast Engineering Consultants India Limited
14-B, Ring Road, I.P. Estate, New Delhi-110002

Registered and Corporate Office:

Broadcast Engineering Consultants India Limited
C-56/A-17, Sector 62, Noida 201301 (U.P.),
Phone: 0120-4177850, Fax: 0120-4177879

Regional Office:

Broadcast Engineering Consultants India Limited
Regional Office: A#7, Ranka Villa, Opposite to Ranka Colony, Bilekahalli, Off
Bannerghatta Main Road, Bangalore, 560076. Contact: +91-80-26685853

5.7 Frequency of Meetings.

The meetings of the Board of Directors are held for the dispatch of the business of the Company at least once in every three calendar months and at least four such meetings are held every year as required under Section 617 of the Companies Act, 1956. The minutes are prepared of each and every meeting.

5.9 Can public participate in the meetings?

No.

Chapter – 6

(The names, designation and other particulars of the Public Information Officers)

6. The names, designation and other particulars of the Central Public Information Officers

6.1 Central Public Information Officer:

Sl. No.	Name	Designation	STD Code	Phone.	Fax	Address
1	Shri D.R. Gogoi	General Manager/	0120	4177850	4177879	Corporate Office: BECIL Bhawan, C-56/A-17, Sector 62, Noida 201301 (U.P.)
2	Shri V.P. Singh	Dy. General Manager	0120	4177850	4177879	Project Office:
3	Shri Awadhesh Pandit (F&A)	AGM (Finance & Accounts)	0120	4177850	4177879	Corporate Office: BECIL Bhawan, C-56/A-17, Sector 62, Noida 201301 (U.P.)
4	Shri Mahesh Chand	AGM (HR) /	0120	4177850	4177879	Corporate Office: BECIL Bhawan, C-56/A-17, Sector 62, Noida 201301 (U.P.)

6.2 Department Appellate Authority:

Sl. No.	Name	Designation	STD Code	Phone	Fax	Address
1	Shri George Kuruvilla	Chairman & Managing Director	0120	4177850	4177879	Corporate Office: BECIL Bhawan, C-56/A-17, Sector 62, Noida 201301 (U.P.)

6.3 Transparency Officer

Shri George Kuruvilla
Chairman & Managing Director
Corporate Office: BECIL Bhawan, C-56/A-17, Sector -62,
Noida 201301
Phone : 0120 – 4177850
Fax : 0120- 4177879

Chapter-7

(Procedure followed in Decision-Making Process)

7. Procedure followed in Decision-Making Process

The procedures being followed by the Company with regard to the decisions for , placement of surplus funds under short term deposits and purchases/supply orders are given as under:-

7.1 Deposit of Surplus Funds.

The Company has evolved a more transparent and defined procedure for placement of surplus funds under Short Term Deposits as per DPE's guidelines.

7.2 Purchases/Supply (Work) Order/Miscellaneous Works.

The Company adopts a system of formation of Committees/Sub-Committee of the different level of officials for making Purchases and other miscellaneous petty works by following the purchase procedure as prescribed under Rules 102,103 & 104 of the General Financial Rules of the Govt. of India as amended from time to time and such decisions recommended by the Committee members are approved by the Competent Authorities as per delegation of powers.

Chapter - 8

(Directory of Officers and Employees)

8. Directory of Officers & Employees

S.No.	Name	Designation
1	Sh. George Kuruvilla	Chairman & Managing Director
2	Sh. D.R.Gogoi	GM
4	Sh.V.P.Singh	DGM
5	Sh. Ravindra B. Jagtap	DGM
6	Sh. Awadhesh Pandit	AGM (F&A)
7	Sh. Avnish Kr Gupta	AGM (Proj.)
8	Smt. Usha Mangalgi	AGM(Proj.)
9	Sh. Ramit Lala	AGM (Proj.)
10	Sh. Mahesh Chand	AGM HR)
11	Sh. Naveen Kaushik	Manager (Fin)
12	Sh. K.S.Bhatia	Manager (BD)
13	Sh. Ankur Saxena	Manager
14	Sh. Vinod Kumar	Manager
15	Sh. B.K.Tiwari	DM
16	Sh. Mritunjay Dev	Dy. Co. Secretary
17	Sh. S.K.Narayanan	Assistant Manager
18	Sh. Alok Chauhan	Assistant Manager
29	Sh. P.K.Mondal	Assistant Manager
20	Ms. Avantika Malhotra	Assistant Manager (HR)
21	Sh. Pankaj Kr Giri	Assistant Manager
22	Sh. Keshav Goyal	Assistant Manager
23	Sh. Rupesh Kumar	Assistant Manager
24	Sh. Prateek Katoch	Assistant Manager
25	Sh. Vipul Kamboj	Assistant Manager
26	Sh. Yogesh Kumar	Assistant Manager
27	Sh. Vijayaraghavan.P	Assistant Manager
28	Sh. Avinash Khanna	Assistant Manager
29	Ms. Kusum Kumari	Assistant Manager
30	Sh. Rajeev Sharma	Assistant Manager
31	Sh. Raman Rana	Assistant Manager
32	Ms. Preeti Chaudhary	Assistant Manager
33	Sh. Chandan Kumar Singh	Assistant Manager
34	Sh. Rakesh Kumar	Assistant Manager (Admn.)
35	Sh. Ajay Kumar	Jr. Manager
36	Sh. Pankaj Sharma	Jr. Manager
37	Sh. Mahendra Singh	Jr. Manager
38	Sh. Rajender Singh	Jr. Manager
39	Sh. Mahendra Singh Rana	Project Engineer

Chapter-9

(Frequently Asked Questions and their Answers)

9. Frequently Asked Questions and their Answers

9.1 FAQs Related to BECIL

Question: What is the status of BECIL as a company ?

Answer: BECIL is a PSU under the Ministry of Information & Broadcasting, Government of India, it provides consultancy and turn-key jobs in the areas of audio-video, acoustics, transmission systems and satellite communication uplink/downlink to broadcasters as well as other organizations who require its expertise in these fields.

Question: How BECIL can help broadcasting organizations?

Answer: BECIL has made significant contribution to sound and TV broadcasting in specialized areas like acoustic treatment of studios, providing sound reinforcement, advanced audio-video systems, installation and commissioning, introduction of digital systems and satellite uplink/downlink. With the convergence of broadcasting, communication and computers, BECIL's role has widened into areas like information service provision i.e. how the broadcast medium can be used effectively in the digital era and help build broadcast infrastructure in the country. The expertise in acoustics, satellite, information technology, digital systems could be used by other organizations also, apart from broadcasters.

Question: Who are BECIL's clients?

Answer: Some of the clients are

- Public and private broadcasters (Sound & TV Broadcasting Satellite Facilities)
- Airport Authority of India (Audio Announcement Systems)
- National School of Drama (Auditorium Sound Reinforcement)
- IGNOU (Distance Education Acoustics)
- IIMC (Technical Facilities for Auditorium)
- National Seeds Corporation (Computerization and Database Management)
- Rajasthan PWD (Electro Acoustics, Conference System)
- National Building Construction Corporation (Acoustics, Lighting Systems for Auditorium) Ministry of Information & Broadcasting.

9.2 FAQ on Digital Terrestrial Television (DTT)

Q1. At a time when Cable TV and satellite based DTH services are fast spreading what is the relevance of terrestrial TV broadcasting?

Even today there are so many remote areas where cable has failed to penetrate. Of course satellite transmission overcomes this problem as it provides a very wide area coverage. However compared to these two, terrestrial TV has a great advantage. It provides a means

for broadcasting content tailor made and targeted for the local/regional population. This is particularly important in a country where people speak a multiplicity of languages and follow a plethora of cultures and customs.

Q2. What is wrong with the existing terrestrial TV transmission systems?

In the existing system based on analog transmission the signals are corrupted by noise and interference as they propagate through terrestrial media.

Terrestrial transmission also suffers from another problem known as 'multipath propagation'. Here signals reach a TV receiver by both a direct path and a delayed path. The latter occurs because the signals get reflected by high rise buildings/trees etc in their path and reach the receiver slightly delayed. These two combine to produce pictures with ghosts.

Q3. How can these problems be solved?

The solution lies in changing the transmission format from analog to digital. Digital signals can be protected from the impairment caused by noise/interference by using a technique called 'Forward Error Correction Coding'. These enable the receiving system to detect and correct these impairments.

As in the case of analog transmission digital transmission also suffers from multipath propagation, however in the case of digital transmission, an effective solution is available. This technique is known as COFDM(Coded Orthogonal Frequency Division Multiplexing) make the DTT signals highly robust in the presence of multipath so much so that , unlike analog TV, DTT signals can be received not only on fixed roof top antennas but also by portable indoor/outdoor antenna as well as reception in moving vehicles.

Q4. Does DTT have any other advantage?

As already mentioned DTT enables a broadcaster to deliver to his viewers audio/video signals of a comparatively much higher quality. In addition to this DTT has another great advantage. It is a highly spectrum efficient technology. Whereas an analog TV transmitter transmits a single TV programme channel through a 7/8 MHZ wide RF channel, a DTT transmitter transmits a multiplex of 5or 6 TV channels through the same RF channel. A broadcaster can use this increased capacity to deliver more TV programmes as well as several new value added services to his viewers.

Q5. How does the increased spectrum efficiency achieved in DTT?

DTT achieves this by using another technology- 'Digital Video/Audio Compression'. A TV channel has a lot of 'Redundant Information'. Compression is the process of identifying and removing this redundant information from the incoming digitized signal. Among other things DVC makes use of the psycho visual properties of the human vision system such that any loss of resolution in compressed pictures will not be noticed by the viewers.

Thus compression results in a reduction in the amount of information to be transmitted in a given time leading to spectrum efficiency.

Q6. Which are the different types of value added services which can be delivered through DTT?

These services or applications can be broadly classified into two main categories- Enhanced services and Interactive services. The former does not require a return channel from the viewer to the service provider whereas the latter requires that. A good example of an enhanced service is one, where a broadcaster transmits a separate data stream carrying some programme related information. e.g. 'telecast of a cricket match ' can have a data stream carrying player profiles. A viewer if interested can run the application and view the profiles overlaid on the screen.

In comparison to this a truly interactive application is one which involves a continuous communication between the service provider and the service consumer. A 'teleshopping' application is a good example of this.

Finally a DTT network can also be used for providing Internet access.

Q7. What are the different international standards available for DTT?

There are 3 standards namely

1. The ATSC standard.
2. The DVB-T standard.
3. The ISDB-T standard.

Of these the DVB-T standard is the most widely deployed standard around the world, mainly because of its much improved performance in the presence of multipath. Doordarshan's DTT service is based on DVB-T standard.

Q8. What are the important features of the DVB-T standard?

The DVB-T system has some important features which the broadcasters find quite useful. The most important is the flexibility provided by the system, the wide choice of user selectable transmission parameters which enable a broadcaster to tailor the transmission system to his requirements.

Another important feature is the two layer hierarchical system provided as an option. In this case the DVB-T transmitter will emit two data streams which may contain the same programmes or entirely different programmes. By clever choice of separate transmission parameters for the two streams, these two streams can be optimized for reception under different conditions, say one for stationery reception and other for mobile reception.

Q9. How does a DTT transmission facility differ from an existing analog one?

The design of the DTT headend is much more complex. First of all it has to be kept in mind that unlike an analog terrestrial TV transmitter a DTT transmitter emits a 'multiplex' of five or six standard definition TV signals plus other data services. This means the DTT headend should have routing and switching capabilities for these many channels. Next the selected channels are converted into digital format using A to D converters. The digitized video/audio signals are compressed by encoders using the well known MPEG-2 compression standard. The output streams from the encoder are then combined into single stream by a unit known as the MPEG-2 Transport Stream multiplexer. The multiplexer also inserts into the stream some additional information. This is arranged into small structures called SI (Service

Information) tables. The SI enables a DTT receiver to display to the viewer a list of available programmes. Whenever a viewer selects a programme for viewing , the receiver again uses some SI tables to correctly de-multiplex the stream into its constituent parts and present to the viewer the programmes selected by him or her.

The final processing at the DTT headend is known as Channel Coding and RF Modulation'. The output from the multiplexer is FEC coded and then digitally modulated.

In case interactive services are to be delivered, a number of additional equipments such as an application server, a return channel signal processor etc have to be installed.

Q10. How is the DTT signal received at home?

For reception the viewer needs a DTT set top box (STB). The output of the receiving antenna is connected to the 'input of the STB and the 'output' of the STB is connected to the antenna socket of the TV set. The STB demodulates and then decodes the incoming DTT signal. It then demultiplexes the stream, extracts user selected TV programme and then remodulates it on to a RF carrier so that it can be directly connected to the input of the TV set.

9.2 Related to seeking Information

Sample Application Form:

Dated:
The Central Public Information Officer BECIL, C-56/A-17, Sector-62 NOIDA-201301
Sub: Request for providing information on _____
Sir,
Please arrange to provide me the information on the captioned subject. I am enclosing herewith a crossed Demand Draft/Pay Order bearing No. _____ dated _____ of Rs. _____ only as per prescribed rate for the above information.
I, therefore, request you to kindly send me the information at the address given below.
Thanking you,
Yours faithfully,
(Name of the Person) Address
Enclosed: Demand Draft/Bankers Cheque No. _____ dated _____ of Rs. _____ only. In case of denial of information, the citizen/person concerned may write to the Appellate Authority of the Company.