

# CIGRE

## RULES FOR STUDY COMMITTEES

The present rules were drawn up from the rules adopted by the Administrative Council during its meeting of August 1968 and amended by the Administrative Council on May 21<sup>st</sup> 1971, June 13<sup>th</sup> 1973, September 5<sup>th</sup> 1978, May 30<sup>th</sup> 1983, August 27<sup>th</sup> 1994, September 2<sup>nd</sup> 1999, August 24<sup>th</sup> 2002 and August 28<sup>th</sup> 2004.

### 1. DEFINITION AND OBJECTIVES

#### **Rule 1. Objectives of a Study Committee (Articles 3 and 15 of the Statutes)**

The activities which CIGRE must undertake to achieve its objectives can be divided into two parts:

- promoting exchange of information on all aspects within its field of activity,
- organising and carrying out of studies for the progress of both technique and knowledge.

The first objective is achieved by participation in the Sessions, Symposia, Colloquia and Regional Meetings, by publications: ELECTRA and technical documents, and by setting up tutorials. The second objective is the permanent task of Study Committees which should consequently be able to rely on the active collaboration of their members.

A link is however maintained between these two types of activity, as the Study Committees are responsible for the study of problems within their fields of activity as defined in Appendix A and in line with their individual Strategic Plans, and for the organisation of discussion meetings during the Sessions, Symposia and Colloquia.

### 2. CONSTITUTION OF STUDY COMMITTEES

#### **Rule 2. Setting up and Disbanding of a Study Committee**

The setting up and disbanding of a Study Committee are decided by the Administrative Council upon recommendation of the Executive Committee

The scope of a Study Committee is determined and, if necessary, modified by the Administrative Council on the recommendation of the Executive Committee. Such matters are put forward to the Executive Committee by the Chairman of the Technical Committee, following discussion with Study Committee Chairmen and advice of the Technical Committee.

The list of Study Committees and their fields of activity are given in Appendix A of this document.

#### **Rule 3. Composition of a Study Committee**

A Study Committee is constituted as follows:

- A Chairman (Rule 4)
- 24 regular members, at the most, each one from a different National Committee (Rule 5)
- A Secretary (Rule 7)
- Observer members, possibly one per National Committee not already represented on the Study Committee (Rule 6). Their number should not exceed 50 % of the regular membership (i.e. 12).

Each of the above persons must be an individual member of CIGRE.

## **Rule 4. Chairman**

4.1. - The Chairman of a Study Committee is elected by the Administrative Council upon recommendation of the Executive Committee. This recommendation is based on a report by the Chairman of the Technical Committee who seeks the advice of the retiring Chairman and the opinion of regular members

In the case of a newly created Study Committee, the Executive Committee will recommend to the Administrative Council a procedure for the election of the Chairman, taking into account the specified requirements of the case.

4.2. - The term of office of a Study Committee Chairman is four years; it can be extended to six years upon decision of the Administrative Council.

As far as possible the term of office of a Chairman begins and ends immediately after the CIGRE Session is over in order to facilitate his participation in the organisation and running of the discussion meetings of the following Sessions.

4.3. - The Chairman of a Study Committee, in collaboration with the Chairman of the Technical Committee and the Secretary General, prepares the proposals to be put forward to the Executive Committee concerning his Committee's membership.

He draws up his Committee's characteristic membership profile (for regular and observer members). This profile is periodically revised to follow reorientation of the Study Committee's main field of activity.

4.4. - The Chairman of a Study Committee organises the work of his Committee and decides - taking into account the views expressed by the members of his Study Committee - on publications to be released.

He is member by right of the Technical Committee and his appointment is personal; his position must nevertheless reflect the position of his Study Committee.

4.5. - When a Chairman is unable to take part in a Study Committee or Technical Committee meeting, he asks a member of the Committee or the Secretary to stand in for him.

In case of death, incapacity or resignation of a Study Committee Chairman, the Executive Committee - at the initiative of the Secretary General and upon proposal of the Chairman of the Technical Committee - will nominate, by correspondence if necessary, one of the members of the Study Committee to assume the Chairman's functions until a regular election can be held.

## **Rule 5. Regular Members**

### *5.1. - Appointment procedure*

Appointments of Regular Members are proceeded to by the Central Office every two years (Session years), and the relevant decisions are taken by the Executive Committee, upon delegation by the Administrative Council. The Executive Committee's decisions are based on candidacy proposals from the National Committees and recommendations of Study Committee Chairmen in collaboration with the Technical Committee Chairman and the Secretary General.

Should a regular member retire in the interval of a two-year appointment period, his seat is to remain vacant until the next appointment period. However, the National Committee concerned may delegate a substitute in this interval.

Appointment of Study Committee members is valid for the term of office given in 5.3

Appendix B gives the detailed procedure for the appointment of Study Committee members.

## 5.2. - *Candidacies*

Each National Committee has the right to put forward a candidate corresponding to the required profile. The candidate's technical qualification and in particular the work he has carried out and published in the Committee's field of concern are set forth.

Basic conditions for membership are :

- sufficient knowledge in the English language (speaking and writing)
- sufficient experience within the scope of the Study Committee and with CIGRE work
- experience of international team work
- a proven ability and experience to present country or personal opinions concerning subjects related to the scope of work of the Study Committee
- support of the candidate's Company.

The choice of candidates is drawn up on the basis of qualifications and character reference. This recommendation is issued in common agreement between the Technical Committee Chairman, Secretary General and Study Committee Chairman.

## 5.3. - *Terms of office : duration, renewals, interruption*

The term of office of members is two years, to be renewed no more than twice. In the case of exceptionally active members a further two-year extension may be granted once only.

Priority will be given to expertise and efficient contribution to the work of the Study Committee. Therefore terms of office can be curtailed at the request of the Study Committee Chairman, who should have first given a fair warning to the non-active member(s) and informed the Secretary General and the Chairman of the National Committee concerned well in advance of the membership renewal process ( 5.1 and 5.4.).

## 5.4. - *Study Committee meeting attendance*

Regular members should attend every meeting of the Study Committee. Should a member be unable to attend one meeting, he will :

- advise the Chairman of his absence in advance
- complete any reports for which he is responsible, and forward them to the Chairman and Secretary in advance of the meeting so that the work of the Study Committee will not be impeded
- arrange for a replacement expert from his National Committee to attend on his behalf.

If a member misses two consecutive meetings the Chairman will consider recommending that his term of office be curtailed. (See 5.3.)

## 5.5. - *Active participation of the members in the Study Committee work*

It concerns several aspects which are: general work at the Study Committee level, engagement in working bodies of the Study Committee and tying up of the Study Committee activities with the concerns of countries and regions.

Every member shall contribute actively to the work of his Study Committee mainly by means of :

- Participating in the regular Study Committee meetings as defined in 5.4. and actively contributing to the discussions
- Conveying the views, concerns and needs of the National Committee from which they have been appointed and presenting proposals for new work based on this.
- Communicating the activities, outcomes of studies, availability of technical papers throughout their National Committee.
- Evaluating and commenting upon the draft documents which are circulated among Study Committee members and ensuring in his National Committee efficient processing of questionnaires issued by the working bodies of the Study Committee .

- Joining at least one Working Body of the Study Committee and seeking technical specialists from his National Committee to recommend as members of Working Bodies.
- Actively assisting in the preparation and conducting of Symposia ,Colloquia organised by the Study Committee and Regional Meetings.
- Considering at a National/Regional level what subjects are most appropriate for adoption as Preferential Subjects at biennial Sessions in Paris.
- Actively participating in the discussions at the biennial CIGRE Group Sessions in Paris and write, or encourage others to write papers for these Sessions.
- Representing, whenever requested, the Study Committee at international level (9.3)

5.6. -. The status of members – Regular or Observer - may be changed from one to the other. The procedure is the same as for other candidacies. The need for rotation must however be kept in mind (5.3).

## **Rule 6. Observer Members**

National Committees may propose names of experts to act as Observer Members (one per National Committee not already represented by a regular member), at the same time as candidacies are put forward for regular membership.

Exceptionally, individual members from countries which do not have a National Committee officially recognised by the Administrative Council may be appointed as Observer Members.

Requirements and appointment procedure are the same for Observer Members and Regular Members (See 5.1.).

Applicants for Observer membership should be individual members of CIGRE (cf. rule 3). Selection of Observer Members will be made by the respective Study Committee Chairmen. The terms of 5.1, 5.2, 5.3 and 5.5 will apply.

The "Observer Member" status implies the following :

- Taking part in the work of the Committee, either in the context of Working Group activities, or by responding to queries or enquiries launched by the Committee. The Observer Member's answer should reflect the view of the experts in the National Committee he is representing.
- No right of vote. Attendance at Study Committee meetings is not compulsory.
- The Observer Member receives information on the work of the Committee in the same way as any regular member.

Chairmen of National Committees and Study Committees should keep in mind that Observer members are expected to contribute actively to the Study Committees.

## **Rule 7. Secretary**

The Secretary of a Study Committee is chosen by the Chairman of the Committee.

He assists the Chairman in the preparation of the Study Committee meetings, Colloquia and Symposia, and in writing the Annual Report. Upon the Chairman's instructions, he draws up the Agenda and Minutes of Study Committee meetings.

At CIGRE Sessions, the Secretary draws up the Daily Summary of discussions following the Group Discussion Meeting.

The Secretary also arranges for circulation of all Study Committee internal documents to Committee Members and the Central Office.

### **3. RESPONSIBILITY OF STUDY COMMITTEES**

#### **Rule 8. Definition and management of work**

8.1. - A Study Committee carries the full responsibility for its work. It can delegate the execution of studies but not the responsibility regarding the definition of the work undertaken or the choice of persons or groups to whom the execution of this work has been assigned: it has to judge the results and proposals and as the case may be, ask for extensions in different directions or for deeper investigations etc...

8.2. - As the studies undertaken by the Study Committees involve significant costs to their members, it is essential that Study Committees and more especially the Chairmen in charge of these see to the rigorous and efficient organisation and execution of their work. Clear time-schedules and specifications of work objectives should be established prior to commencing work.

8.3. - Borderline problems between Study Committees working in neighbouring fields in general cannot be entirely avoided. It is the responsibility of Study Committee Chairmen that such work be coordinated in agreement with the Chairman of the Technical Committee, the latter having, if necessary, to make the ultimate decisions. Coordination of work is facilitated by the Strategic Plan of each Study Committee, with which all other Committees are acquainted.

8.4. - The results of the work of the Study Committees have to be made available for circulation. Study Committee Chairmen are responsible for meeting the requirements concerning the various categories of reports or publications needed to supply such information.

### **4. STUDY COMMITTEE ACTIVITIES AND MEETINGS**

#### **Rule 9. Study Committee Activities**

9.1. - The main activity of a Study Committee is to determine the technical questions the progress of which call for international collaboration and to aim at advancing knowledge in these fields. Its principal tasks, as defined by the Technical Committee Strategic Plan and by each Committee's Strategic Plan, are as follows:

- a) the setting out of a Strategic Plan from which are derived the Action Plan and working programme of the Study Committee that will be updated periodically; the basic horizon of the Strategic Plan should be 10 years ahead. The working programme will cover 3 years.
- b) the application of suitable means to make possible the carrying out of this programme such as:
  - the study of individual or collective internal working documents
  - the setting up of Working Bodies and the discussion of their work
  - the launching of international enquiries and discussion of their results
  - the technical organisation of Colloquia (See Rule 10) and Symposia (See Doc. 'Organisation of CIGRE Symposia').

9.2. - Another activity of a Study Committee is to assist its Chairman in the preparation of the corresponding Group Discussion Meeting at the biennial Sessions, namely the appointment of the Special Reporters and selection of Preferential Subjects (See Doc. 'General Rules for Sessions').

9.3. - The representation of the Study Committee by its members must be encouraged at CIGRE Regional Meetings and in meetings of international bodies active on similar issues within the electrotechnical and associated fields.

## **Rule 10. Study Committee meetings**

*10.1.* - Each Study Committee must hold a regular meeting once a year. In Session years the meeting takes place in the location and at the time of the Session. This facilitates the participation of Study Committee members and Working Group Conveners in the Session.

In the years when there is no Session, the meetings should be held in different countries, at a National Committee's invitation, addressed to the Chairman of the Study Committee. SC meetings should whenever possible, be held in conjunction with other CIGRE events (Symposium or Regional Meeting)

*10.2.* - *A regular meeting includes:*

- The Chairman, the Secretary, the Special Reporters during Sessions, the regular members, the Working Group Conveners, the observer members and possibly the Special Reporter for a Colloquium.
- As guests, upon the invitation of the Chairman of the Study Committee, Chairmen or observers from other Study Committees and the Chairman of the corresponding IEC Technical Committee.
- Possible observers from other International Technical Organisations carrying out studies jointly with the Study Committee or in parallel.
- To add to the effectiveness of a particular discussion, the Chairman may (on his own initiative or on the recommendation of a regular or observer member) invite some experts whom he feels are likely to contribute usefully to the discussions.

*10.3.* - Considering the international character of CIGRE, Study Committee meetings must be held in all countries which actively participate in its work.

The location of a Study Committee meeting should preferably be anticipated three years in advance, keeping the Secretary General informed so as to ensure coordination between Study Committees. Moreover, such early planning makes the organisation of Colloquia, Symposia and Regional Meetings more efficient, both as regards the choice of subjects and possible cooperation between Study Committees of CIGRE or with other International Organisations.

*10.4.* - Study Committee Chairmen are free to set the length of their meeting, usually one and a half to two days in the case of an ordinary meeting without a Colloquium associated.

The host National Committee handles the local organisation which implies providing the meeting premises. The participants have to handle their own accommodation and transport expenses including local transport.

*10.5.* - *Tutorials*

In some circumstances such as in countries where the number of Delegates to the biennial Sessions is small on account of the distance, it may be of interest for CIGRE to take the opportunity of a Study Committee meeting to have Tutorial sessions designed for the benefit of engineers from the host country. The basic rules for organisation and running of these tutorials are given in Appendix D.

## **Rule 11. Organisational structure and working methods**

A Study Committee may be regarded as a governing board in charge of studies in a specific field, with the following features:

- The management of an SC is delegated exclusively to its Chairman, adequately assisted by the SC Secretary.
- The Chairman seeks and takes into consideration the view of the members and, when appropriate, of the TC.
- Advisory Groups are set up as staff functions to assist the Chairman; they may be of indefinite duration but must not have any line management responsibilities. They report to the Chairman.
- Working Bodies, Working Groups and Task Forces, are “line” functions responsible for performing the work assigned to them: they must be of limited and clearly defined duration, produce results for publication and disband when the work is completed.

WGs and TFs report to the Chairman of the SC.

As a general rule SCs should be careful not to indulge in over-organisation and to adhere to as simple and clear a structure as possible.

#### *11.1. - Advisory Groups*

They assist the Chairman in the definition of the directions to be followed by the SC. They provide advice and are not normally involved in the preparation of documents for external publication; still, some of their production can be deemed of interest for publication, especially in ELECTRA.

Each SC should include at least one AG, designated as Strategic AG. More specialised AGs may deal with tutorials or with main technical directions for an SC with a wider scope. They may be required to prepare ToRs for working bodies, but they do not manage these.

AGs must have clear objectives and ToRs, but do not need to have pre-determined disbandment dates. Decision to set up an AG is the responsibility of the SC Chairman, with information to the TC Chairman. The Chairman appoints the convener of the AG, who in turn puts forward members and chooses a Secretary. AGs report to the SC Chairman.

#### *11. 2.- Working Bodies*

SC Working Bodies, Working Groups (WGs) and Task Forces (TFs), are designed to perform specific technical activities selected by their respective SCs, proposed by the Chairman and approved by the TC Chairman. They are expected to carry out the work related to their terms of reference within limited and pre-determined periods of time – usually three years or less– and to produce relevant documents for publication. There can be no working bodies of indefinite duration.

WGs make up the largest part of an SC’s working bodies. However, TFs may also be set up when the scope of the work to be performed does not justify creation of a fully fledged WG.

All WGs and TFs report directly to the respective SC Chairman.

The number of WGs and TFs can vary over time depending on requirements but should never exceed the “firepower” of the SC as realistically assessed by the SC Chairman.

WGs may occasionally set up internal TFs, henceforth designated as WGTfFs, if this is essential for the efficient performance of the work assigned to the WG by the SC. These are merely internal subdivisions of the WG from which they originate. Decision to create WGTfFs is the sole responsibility of the WG Convener, who cannot assign a subject outside the terms of reference of the originating WG. WGTfFs are not counted as separate working bodies of an SC.

- Terms of Reference (ToRs) of the Working Bodies have to be clearly defined and include a list of deliverables and the associated timing. The proposed Working Body is attributed a title and reference number (i.e. two figures for the Study Committee, a dot followed by two figures for the Working Body number). A standard Form for creation of a Working Body (See Appendix C) is sent by the SC Chairman to the Chairman of the TC for final approval. This process will be effected by correspondence to avoid unnecessary delay.

The Central Office is informed of the setting up of any Working Body and of its ToRs, so as to be able to regularly update the list of Working Bodies including ToRs, Conveners and disbanding time.

- The newly appointed Convener of the Working Body chooses, in agreement with the SC Chairman, the members of his Working Body. Usually he will also nominate a Secretary of the Working Body.

- Experts of Working Bodies can be selected among members of the Committee as well as outside the Committee ; they can be chosen among non members of CIGRE, depending on qualification and ability to take an active part in the work.

- Activities are carried out mainly by correspondence, and if necessary, through meetings organised upon invitation of one of the experts, or at the time of the Session.

- Every year, at the meeting of the Study Committee, Conveners present their progress report and receive instructions for the continuation of their programme.

## **Rule 12.                    Coordination of the work of Study Committees**

When there are any questions or problems of common interest for two or more Study Committees, their Chairmen must take the necessary steps to ensure the coordination of their work in this field. For this purpose they can adopt one of the following methods:

a)        Establish liaison between the relevant Committees, by the appointment of observers from one Committee to the other.

b)        Set up joint Working Groups: the Convener of a joint Working Group should be nominated by agreement between the Chairmen of the relevant Study Committees: from the administrative point of view, the Working Group should be considered part of the Committee which has set it up.

If any difficulty arises, the determination of the borderlines between the fields of activity of two or more Study Committees is the responsibility of the Chairman of the Technical Committee, after seeking the opinion of the Chairmen of the Study Committees concerned.

## **Rule 13.                    Colloquia**

- A Colloquium is an occasional meeting organised by a Study Committee in odd-number years, to discuss a number of defined problems in depth. In addition to the people taking part in normal meetings, a limited number of experts, personally invited by the Study Committee Chairman may participate in a Colloquium.

- A Colloquium, like a Study Committee meeting, can only be held following the official invitation of a National Committee who thereby agrees to handle the practical organisation of the event.

- The technical organisation of a Colloquium is the responsibility of the Study Committee concerned and of the Chairman of this Committee.

- Preliminary technical documents for a Colloquium are produced .

- No Minutes are drawn up for a Colloquium, but within the following two months, a "General Report" is prepared, which comprises the following:

- \* a short introduction to the Colloquium explaining in particular the reasons for the choice of subjects;
- \* a summary of reports, paying particular attention to any new features;
- \* a summary of the discussions, the titles of the papers and authors' names, allowing easy reference later on.

- After the Colloquium, the papers and the Special Reports presented at this event are considered as Study Committee documents to be kept by the Study Committee Secretary. The General Report may be published in ELECTRA, if the Chairman so wishes.

- Expenses in connection with a Colloquium are covered in the same way as for Study Committee meetings (10.4.) and National Committees are advised to limit arrangements to what is strictly essential for the smooth running of the meeting.

- Organising National Committees may find it necessary to charge participants a moderate registration fee to partially cover National Committee expenses for the event.

## **5. STUDY COMMITTEE DOCUMENTS AND PUBLICATIONS**

### **Rule 14. Study Committee Information – E-mail and Website**

The Study Committee Chairmen are responsible for the organisation of the distribution of information within and outside the Study Committees. Study Committees members and experts should communicate mainly by e-mail, for administrative as well as technical matters. Each Study Committee member – regular or observer – or expert, must communicate his e-mail address and update it in case of change. The directory of Study Committee members and experts must contain the e-mail coordinates of everybody.

#### *14.1. - The Information of Study Committee Members*

Internal working documents of a Study Committee are prepared by the members as the basis of discussions at meetings. These papers are not circulated outside the Study Committee and no mention of these is to be made in documents to be published.

Minutes of Study Committee meetings are also internal documents. Within three months after the meeting they are sent out to Study Committee members, Working Group Conveners and to the Chairmen of other Study Committees who may be concerned. A copy is also forwarded to the Central Office for information and to the Chairman of the Technical Committee.

#### *14.2.- The General Information of CIGRE Members*

In keeping with the provisions of the Strategic Plan and the Action Plan, every CIGRE member must be informed of the main results reached by the Study Committees. This information is supplied as follows:

- An Annual Report on Technical Activities of CIGRE is published in the June issue of ELECTRA. This Report is drawn up on the basis of the Study Committee Annual Reports.
- The Study Committee Annual Report on its activities, presenting the results reached by each Study Committee and its Working Groups, and giving its objectives, is made available on the Study Committee websites.
- A synthesising General Report is drawn up after a biennial Session, Symposium or Colloquium, highlighting the main facts emerging from the papers and their discussion.

#### *14.3. - The Technical Information of CIGRE Members*

This type of information, which results directly from the activities of Study Committees and Working Bodies, is supplied by various types of publications which are all subject to approval by the Study Committee(s) concerned :

a) Papers presented at Sessions as "Study Committee papers" :

The best time for such presentation is at the stage when a synthesizing analysis can be drawn, with open discussions from the audience still possible.

b) Papers presented at Symposia :

Along the lines of papers presented at Sessions, though papers centre around one topic which is the subject of the Symposium.

c) Papers published in ELECTRA and on the CIGRE website:

These papers are the normal way to give information on studies undertaken by the Committee itself or by one of its Advisory Groups or Working Bodies. It is also the way to inform members on the progress of Working Groups when studies have reached an important stage.

Symposia and Colloquia General Reports are generally published in ELECTRA.

Papers presented at Sessions, Symposia and papers published in Electra must comply with the rules applicable to these publications.

d) Documents published as Technical Brochures :

These papers define the latest developments in a technique. They are synthesizing papers on topics of main interest drawn up by Working Groups, Task Forces. They always deal with a very specialised field.

They are published by the Central Office and may be purchased ; their length is not limited. The executive Summary of new brochures is issued in ELECTRA. The list of available brochures is available on the CIGRE website.(Catalogue of Publications)

e) Working Body Reports:

It so happens that the subject and result of the work are not broad enough to be published as a Technical Brochure. They are therefore published as a Report and are listed in the catalogue of CIGRE Publications.

f) Preparatory reports to the work of the IEC :

These documents are drawn up by Study Committees in connection with the corresponding IEC Committees. They are officially sent through the Central Office according to the rules governing relations between CIGRE and IEC (Rule 16).

#### *14.4. - The Public's General Information*

It is both useful and in the interest of CIGRE to publicize to a wider audience these conclusions which relate to issues of general interest.

The Chairman of the Study Committee concerned, with the assistance of the Secretary should then submit "technical statements" to the Central Office, giving the assessment of his Study Committee with regard to these issues.

Following approval by the Chairman of the Technical Committee these statements are published in ELECTRA and made freely available on the CIGRE website.

#### *14.5. - Study Committee Web sites*

Each Study Committee develops and updates a website with a public section and private section, containing information specific to the Study Committee, technical information, events, administrative information.

**Rule 15. Languages**

French and English are the two official languages of CIGRE.

Internal documents drawn up by Study Committees for their own purposes are either in English or French . If the Study Committee Chairman considers translation in the other language is absolutely necessary, this is effected by the Study Committee. For documents published in ELECTRA the language(s) used (English, or French and English) is determined by rules set by the ELECTRA Editorial Committee.

**Rule 16. Documents intended for IEC and other International Organisations**

Documents drawn up by a Study Committee on behalf of CIGRE for an IEC Technical Committee, will be sent through the Central Offices of both Organisations.

## Appendix A

### FIELDS OF ACTIVITY OF STUDY COMMITTEES

<b>A<sub>1</sub></b>	<b>Rotating Electrical Machines</b> Economics, design, construction, test, behaviour and materials for turbine generators, hydrogenerators, non conventional machines and large motors.
<b>A<sub>2</sub></b>	<b>Transformers</b> Design, construction, manufacture and operation for all kinds of power transformers including industrial, DC converters and phase-shift transformers and for all types of reactors and transformer components (bushing, tap-changer...)
<b>A<sub>3</sub></b>	<b>High Voltage Equipment</b> Theory, design, construction and operation for all devices for switching, interrupting and limiting currents, surges arresters, capacitors, busbars and equipment insulators and instrument transformers.
<b>B<sub>1</sub></b>	<b>Insulated Cables</b> Theory, design, applications, manufacture, installation, testing, operation, maintenance and diagnostic techniques for land and submarine AC and DC insulated cables systems.
<b>B<sub>2</sub></b>	<b>Overhead lines</b> Design, study of electrical and mechanical characteristics and performance, route selection, construction, operation, service life, maintenance, refurbishment uprating and upgrading of overhead lines and their components including : conductors, earth wires, insulators, towers, foundation and earthing systems.
<b>B<sub>3</sub></b>	<b>Substations</b> Design, construction, maintenance and ongoing management of substations and electrical installations in power stations, excluding generators.
<b>B<sub>4</sub></b>	<b>HVDC and Power Electronics</b> Economics, application, planning aspects, design, protection, control, construction and testing of HVDC links and the associated equipment. Power Electronics for AC systems and Power Quality Improvement and Advanced Power Electronics.
<b>B<sub>5</sub></b>	<b>Protection and Automation</b> Principles, design, application and management of power system protection, substation control, automation, monitoring and recording – including associated internal and external communications, substation metering systems and interfacing for remote control and monitoring.
<b>C<sub>1</sub></b>	<b>System Development and Economics</b> Economics and system analysis methods for the development of power systems : methods and tools for static and dynamic analysis, planning issues and methods in various context, assets management strategies.
<b>C<sub>2</sub></b>	<b>System Operation and Control</b> Technical and human resource aspects of operation of power systems : methods and tools for frequency, voltage and equipment control, operational planning and real time security assessment, fault and restoration management, performance evaluation, control centre functionalities and operators training.
<b>C<sub>3</sub></b>	<b>System Environmental Performance</b> Identification and assessment of the impacts on environment of electric power systems and methods used for assessing and managing the environmental impact of system equipment.
<b>C<sub>4</sub></b>	<b>System Technical Performance</b> Methods and tools for power system analysis in the following fields : power quality performance, electromagnetic compatibility, lightning characteristics and system interaction, insulation coordination, analytical assessment of system security.
<b>C<sub>5</sub></b>	<b>Electricity Markets and Regulation</b> Analysis of different approaches in the organisation of the Electric Supply Industry : different market structures and products, related techniques and tools, regulations aspects.
<b>C<sub>6</sub></b>	<b>Distribution Systems and Dispersed Generation</b> Assessment of technical impact and requirements which new distribution features impose on the structure and operation of the system : widespread development of dispersed generation, application of energy storage devices, demand side management ; rural electrification.
<b>D<sub>1</sub></b>	<b>Materials and Emerging Technologies</b> Monitoring and evaluation of new and existing materials for electrotechnology, diagnostic techniques and related knowledge rules and emerging technologies with expected impact on the system in medium to long term.
<b>D<sub>2</sub></b>	<b>Information Systems and Telecommunications</b> Principles, economics, design, engineering, performance, operation and maintenance of telecommunication and information networks and services for Electric Power Industry ; monitoring of related technologies.

## Appendix B

### Procedure for the Appointment of Study Committee Members

Appointment of Study Committee members is proceeded to once every other year. The appointment procedure for Regular and Observer members to Study Committees includes the following steps:

1. At the end of uneven number years an enquiry is carried out with National Committees:

NCs are requested to send their proposals for SC membership for the 2 following years, Regular members and Observer members.

For every new candidate they have to provide a short C.V. (candidacies without a CV will not be considered).

The Curriculum Vitae must bring out the candidate's experience, the work he has achieved in the area of concern of the Study Committee and indicate his present position, the address of his company and his contact details.

**Note:** If substitutes have been replacing retiring members temporarily (Rule 5.1), their candidacy as a new member must be put forward at this time.

**The deadline set for receipt of the proposals and CVs from National Committees should be strictly observed.**

2. Proposals by the National Committees are sent to the Secretary General who passes them on with comments, if any, to the Study Committee Chairmen.

3. On account of the limited number of seats on Study Committees, a number of candidates proposed by National Committees may not be considered for regular membership. Study Committee Chairmen may however propose these candidates as observer members.

4. Taking into account favourable opinions or reservations expressed by Study Committee Chairmen, the TC Chairman, with the collaboration of the Secretary General, draws up a proposal to be put forward to the Executive Committee.

5. At the first Executive Committee meeting held in even number years, the Executive Committee decides on renewals and new appointments. No candidacies will be accepted after this meeting.

6. The Chairmen of Study Committees and of National Committees as well as the newly appointed or renewed members are informed of the Executive Committee's decisions by the Secretary General.

7. Newly appointed members will officially take up their functions at the first meeting to follow their appointment, usually at the time of the Paris Session.

# Appendix C



Study Committee No :

## WORKING BODY\* FORM

<b>Group No :</b>	<b>Name of Convener :</b>
<b>TITLE of the Group :</b>	
<b>Scope, deliverables and proposed time schedule of the Group :</b>	
<b>Papers issued :</b>	
<b>Approval by TC Chairman :</b>	<b>Date :</b>

# Appendix D

## CIGRE TUTORIALS

### 1. PREAMBLE

In the CIGRE Technical Committee Action Plan (Draft - 21.01.00) it is stated that tutorials have to be organised by CIGRE, as a means to disseminate CIGRE information.

The proposal supported by the Technical Committee was approved by the Administrative Council (Sept. 2001).

The purpose of this document is to draw up common rules for the design, implementation and management of CIGRE tutorials, in accordance with the principles validated by the CIGRE Administrative Council.

### 2. GENERAL PRINCIPLES FOR THE ORGANISATION OF TUTORIALS

The CIGRE Study Committees are responsible for the contents and the curricula of the tutorials run in the name of CIGRE. Study Committees each set up an Advisory Committee in charge of Electric Power Engineering Education and tutorials. This Committee is responsible for the drawing up and updating of the contents of the tutorials, defining the curricula, selecting lecturers, organising feedback on quality (relevance).

The National Committees are in charge of the management of the tutorials - logistics, financial management.

The teaching is performed by SC members or experts, or by non-CIGRE staff, upon approval by the SC Advisory Committee.

### 3. THE ROLE OF STUDY COMMITTEES IN TUTORIALS

Under the governance of the EPEE Advisory Committee, the Study Committees are responsible for:

- The EPEE Action Plan section, related to their Study Committee
- The choice of topics for the tutorials, with respect to the identified target groups
- The design and production of the teaching material of the tutorials
- The definition of the tutorials curricula
- The appointment of lecturers
- The monitoring of the quality of the tutorials.

The Technical Committee of CIGRE will monitor the involvement of the Study Committees, on a regular basis.

### 4. FUNCTIONS OF THE CIGRE NATIONAL COMMITTEES

Tutorials are held in conjunction with CIGRE events: SC and NC meetings, Regional Conferences, Symposia... (As a general rule, tutorials are not to be organised at the time of the CIGRE Biennial Session).

Decision to hold tutorials is made jointly by the National Committee and the SCs involved, upon approval by the CIGRE Central Office. Nature of the tutorials, topics and curricula are specified, as well as time slot in the meeting time-table.

Information on the tutorial is made available by the Authority in charge of the event: National Committee or CIGRE Central Office, and is included in the programme of the main event in conjunction with which the tutorial is organised. Material for the tutorial is provided free of charge by the Study Committees. Special provisions could be made to cover translation requirements.

## **5. OWNERSHIP OF TUTORIALS**

Tutorial material is CIGRE property; contents are protected by the appropriate measures taken (copyright), and kept for CIGRE's exclusive use. It is not to be sold outside the Association.

## **6. FINANCIAL RULES**

- A fee may be charged to attend the tutorial. This fee is intended to cover expenses incurred by the National Committee in charge of the organisation, and responsible for the financial balance.
- In exceptional cases, the organising National Committee may recover through the attendance fee the expenditure related to fees paid to lecturers.