

HISTORY OF THE U.S. NATIONAL COMMITTEE OF CIGRÉ (1921 – 2010)

U.S. National Committee of CIGRÉ

The National Committee of CIGRÉ in the United States of America is known as the U.S. National Committee (USNC). It was formed to provide a mechanism for U.S. experts to participate in CIGRÉ’s international cooperative efforts. Through the USNC, U.S. technical knowledge has been made available to other nations, technical knowledge from other nations has been provided to the United States, and the overall knowledge among the various national participants has been advanced.

The following historical information provides insight as to how CIGRÉ grew, the role of the USNC in this growth, the specific areas in which the USNC has made important contributions, and some of the members of the USNC who played important roles.

Chronology of Key CIGRÉ and USNC Events

Time Period	Event
November 1921	<ul style="list-style-type: none"> • CIGRÉ formed to be a non-governmental international organization. Proposed and funded by Jean Tribot-Laspière of France in association with Frederic Attwood of the United States. • A.E. Kemelly of the United States was one of three Vice Presidents appointed. • Frederic Attwood became the first Chairman of the U.S. National Committee.
November 1923	<ul style="list-style-type: none"> • Second CIGRÉ Session • 11 U.S. delegates attended. • First Study Committee appointed to study “rational use of fuel.” • Decision made to hold conference biennially (every two years) in Paris, France. • Formation of national committees recommended.
1925 - 1931	<ul style="list-style-type: none"> • CIGRÉ formed a number of additional study committees.
1933 - 1939	<ul style="list-style-type: none"> • CIGRÉ Sessions continued with total number of delegates attending each biennial conference increasing.
1939 - 1945	<ul style="list-style-type: none"> • World War II - CIGRÉ activities ceased.
June 1946	<ul style="list-style-type: none"> • First post-war CIGRÉ Session. • 17 U.S. delegates attended. • Agreed to resume biennial (every two years) meetings.
July 1951	<ul style="list-style-type: none"> • CIGRÉ Administrative Council of 35 members met. • Philip Sporn was one of the Vice Presidents and represented the U.S.
1951	<ul style="list-style-type: none"> • Relay Protection Research Group organized with 39 persons from 11 countries, including the U.S.

Time Period	Event
1956	<ul style="list-style-type: none"> • S.B. Cray of GE chaired the Study Committee on Stability and provided information on the research underway in the U.S.
1958	<ul style="list-style-type: none"> • CIGRÉ Session, 39 U.S. delegates attended.
1960	<ul style="list-style-type: none"> • CIGRÉ Session.
1962	<ul style="list-style-type: none"> • CIGRÉ Session, 52 U.S. delegates attended.
1964	<ul style="list-style-type: none"> • CIGRÉ Administrative Council created a special six-person Working Committee on the preparation of new statutes for CIGRÉ. Philip Sporn represented the U.S.
June 1964	<ul style="list-style-type: none"> • 20th CIGRÉ Session held. A key meeting was that of the EHV AC Transmission Study Committee, chaired by Philip Sporn. Sporn also presented arguments to the Administrative Council to increase the number of papers allocated to the United States.
June 1966	<ul style="list-style-type: none"> • 21st CIGRÉ Session, 86 U.S. delegates attended.
August 1968	<ul style="list-style-type: none"> • 22nd CIGRÉ Session, 81 U.S. delegates attended.
May 1969	<ul style="list-style-type: none"> • CIGRÉ Executive Committee and Administrative Committee met in Italy where Pope Paul VI welcomed them and noted the important role of CIGRÉ in international cooperation and peace-keeping. • CIGRÉ Study Committee on Overhead Lines met in Richmond, Virginia with emphasis on the VEPCO 500 kV experience.
August 1970	<ul style="list-style-type: none"> • 23rd CIGRÉ Session, 79 U.S. delegates attended. • Paper “Initial Experience on the 765 kV System of AEP” was an important contribution.
1971	<ul style="list-style-type: none"> • Study Committee 32, System Planning and Operation, chaired by Charles Concordia, met in Philadelphia, PA (United States).
August 1972	<ul style="list-style-type: none"> • 24th CIGRÉ Session. • Focus increased greatly on development of power grids.
August 1974	<ul style="list-style-type: none"> • 25th CIGRÉ Session, 87 U.S. delegates attended.
August 1976	<ul style="list-style-type: none"> • 26th CIGRÉ Session (UNESCO Building). • 89 U.S. delegates attended.
August 1978	<ul style="list-style-type: none"> • 27th CIGRÉ Session (UNESCO Building). • 99 U.S. delegates attended. • Round table on “The Transmission Boundaries of the XXI Century” was a key factor in which Lionel O. Barthold represented the United States.
August 1980	<ul style="list-style-type: none"> • 28th CIGRÉ Session (U. of Paris – Assas Law School). • 88 U.S. delegates attended. • Major reports on voltages above 1000 kV included Bonneville Power Administration’s presentation on results of tests on a 1200 kV transmission line.
September 1982	<ul style="list-style-type: none"> • 29th CIGRÉ Session (U. of Paris – Assas Law School). • 95 U.S. delegates attended. • Significant reorganization of CIGRÉ Study Committees.
September 1984	<ul style="list-style-type: none"> • 30th CIGRÉ Session (U. of Paris – Assas Law School). • 100 U.S. delegates attended. • Structure of Administrative Council revised. • Willis S. White, Jr. (USNC) elected President of CIGRÉ.
November 1985	<ul style="list-style-type: none"> • Africon Conference held in Dakar, Senegal, with several presentations from the United States on development of power systems in Africa, including one by Joseph Swidler, former Chairman of the U.S. Federal Power Commission.
September 1986	<ul style="list-style-type: none"> • 31st CIGRÉ Session (U. of Paris – Assas Law School). • 85 U.S. delegates attended.

Time Period	Event
August 1988	<ul style="list-style-type: none"> • 32nd CIGRÉ Session (Palais des Congrès). • 127 U.S. delegates attended.
1989	<ul style="list-style-type: none"> • “CIGRÉ 2000” Committee approved with Lionel O. Barthold representing the United States.
August 1990	<ul style="list-style-type: none"> • 33rd CIGRÉ Session (Palais des Congrès). • 154 U.S. delegates attended.
September 1991	<ul style="list-style-type: none"> • CIGRÉ Study Committee on Overhead Lines met in Fort Worth, Texas.
August 1992	<ul style="list-style-type: none"> • 34th CIGRÉ Session (Palais des Congrès). • 144 U.S. delegates attended.
August 1994	<ul style="list-style-type: none"> • 35th CIGRÉ Session (Palais des Congrès). • 119 U.S. delegates attended. • Attention increasingly placed on systems of developing nations. • Session combined with CIGRÉ-EXPO '94 for first time for presentations of equipment and source by more than 50 companies. This was the first time CIGRÉ deviated from its past strong history of no commercial activities in presentations.
May 1995	<ul style="list-style-type: none"> • Major colloquium held in Tokyo, Japan on “Organizational and Legal Actions for the Development of Power Systems.” • Major reports were made by John A. Casazza of the United States.
August 1996	<ul style="list-style-type: none"> • 36th CIGRÉ Session (Palais des Congrès). • 100 U.S. delegates attended.
August 1998	<ul style="list-style-type: none"> • 37th CIGRÉ Session (Palais des Congrès). • 105 U.S. delegates attended.
1999	<ul style="list-style-type: none"> • CIGRÉ Study Committees on Switching Equipment and on Rotating Machines met in the United States.
August 2000	<ul style="list-style-type: none"> • 38th CIGRÉ Session (Palais des Congrès). • 97 U.S. delegates attended.
June 2001	<ul style="list-style-type: none"> • CIGRÉ Study Committee on Power System Planning & Development met in the United States (Washington, D.C.)
August 2002	<ul style="list-style-type: none"> • 39th CIGRÉ Session (Palais des Congrès). • 100 U.S. delegates attended.
October 2003	<ul style="list-style-type: none"> • The Electric Power Research Institute, on behalf of the USNC, hosted the meetings of the CIGRÉ Executive Committee and the CIGRÉ Administrative Council in the United States (Palo Alto, CA).
August 2004	<ul style="list-style-type: none"> • 40th CIGRÉ Session (Palais des Congrès). • 100 U.S. delegates attended.
August 2006	<ul style="list-style-type: none"> • 41st CIGRÉ Session (Palais des Congrès). • 118 U.S. delegates attended.
August 2008	<ul style="list-style-type: none"> • 42nd CIGRÉ Session (Palais des Congrès). • 110 U.S. delegates attended.

A general meeting of the membership of the USNC is held once a year, usually coincident with and at the location of the annual meeting of the IEEE Power and Energy Society. At this meeting, reports are given on the administrative status and activities of the USNC to the membership and elections of officers take place. This general meeting is followed by a meeting of the USNC Executive Committee, which is comprised of the officers of the USNC. The annual USNC general meetings were initiated in the 1960s and began performing some of the functions

(such as the election of USNC officers) previously performed by the earlier Executive Committees, which had previously directed all activities of the USNC.

In association with the biennial CIGRÉ Sessions, formal receptions are held in the evenings by several CIGRÉ national committees often at historic locations. Typically, the National Committee of France and various other national committees each hold receptions on different nights of the conference week that provide opportunities to meet delegates from various countries. The USNC has sponsored a reception at each CIGRÉ biennial conference, with one of the most memorable occurring in 1976, the U.S.'s bicentennial year, at the U.S. Embassy and its gardens. Unfortunately, the reception size and security issues now prevent holding the USNC reception at this location. In the last several conference years, the USNC reception has been held at the Pavillon Gabriel on 5, avenue Gabriel, Paris. The USNC also holds an information meeting for its participating members in Paris, France, at the Palais des Congrès conference facility just prior to the opening of the CIGRÉ Session.

Presidents of U.S. National Committee

The leadership of the USNC is provided by its chairmen or presidents, its Executive Committee, and its Technical Committee. Key among its officers was Frederic Attwood who served for 33 years as President and Philip Sporn who served for 18 years. The USNC presidents often were industry leaders and chief executives in their companies. Their positions enabled them to enlist both the necessary financial support from industry and dues paying individual members. They also had sufficient stature to represent the USNC in the international committee activities of CIGRÉ. The importance of the roles of Frederic Attwood and Philip Sporn, and the high regard with which they were held, cannot be over emphasized.

Presidents of U.S. National Committee of CIGRÉ (1921–2010)

1921 – 1954	Frederic Attwood (Retired as Vice President & Director, Ohio Brass Company)
1954 – 1972	Philip Sporn (President – American Electric Power)
1973 – 1978	William R. Gould (President – Southern California Edison)
1979 – 1981	W. Donham Crawford (President – Gulf States Utilities)
1982 – 1984	Willis S. White, Jr. (President – American Electric Power)
1985 – 1986	Harold W. Sonn (President – Public Service Electric & Gas)
1987 – 1992	George A. Maneatis (President – Pacific Gas and Electric/Consultant)
1993 – 1998	Harold N. Scherer, Jr. (President – Commonwealth Electric Company/Consultant)
1999 – 2004	Hans E. Weinrich (Vice President – ABB Power T&D/Consultant)
2005 – 2010	Clark W. Gellings (Vice President – EPRI/EPRI Fellow)

The President of the USNC also serves as the Chairman of the Executive Committee of the USNC, the governing body of the USNC. The members of the Executive Committee are elected by the USNC's general membership and currently include a President, Secretary, Treasurer, the immediate Past President and 16 Vice Presidents. Each Executive Committee member serves a two-year term and may be re-elected for successive two-year terms. However, no person who has served as President for three successive two-year terms is eligible to be elected until at least two years have elapsed.

USNC Technical Committee, Secretary, and Treasurer

Much of the technical operation of the USNC is the responsibility of its Technical Committee. One of the USNC Vice Presidents is appointed by the USNC President with the approval of the Executive Committee to serve as Chairman of the USNC Technical Committee. The Technical Committee membership is comprised of those USNC members that serve as USNC representatives to the CIGRÉ Study Committees. Membership in the Technical Committee covers a broad range of industry and university technical experts. The major duties of the Technical Committee include selecting and recommending the U.S. papers to be put forth for the CIGRÉ Sessions, and recommending to the USNC Executive Committee for its approval U.S. appointments to CIGRÉ Study Committees.

Chairmen of the USNC's Technical Committee (1964 – 2010)

1964-1972	Daniel T. Braymer (Editor - Electrical World)
1972-1980	John A. Casazza (Vice President – Public Service Electric & Gas)
1980-1984	Andrew F. Corey (Vice President - Boston Edison)
1985-1990	Harold N. Scherer, Jr. (Sr. Vice President – American Electric Power)
1991-1998	Thomas E. Sharp (Principal Engineer – Public Service Electric & Gas)
1999-2003	Arun D. Phadke (Distinguished Professor - Virginia Polytechnic Institute)
2003-2008	B. Don Russell (Regents Professor, Electrical Engineering – Texas A&M University)
2009-2010	John D. McDonald (General Manager, Marketing – GE Energy T&D)

The USNC Secretary and Treasurer functions were provided for many years by Ebasco at no charge to the USNC with Larry Mulligan serving for most years in this role, followed at Ebasco for a short time by Herbert Limmer. In 1984, Andrew F. Corry was hired as a paid general manager and held the USNC Secretary-Treasurer position until 1994. He was succeeded in 1995 by the staff at Virginia Polytechnic Institute (contract agreement) under Professor Arun G. Phadke, USNC Secretary-Treasurer and a member of the USNC Executive Committee. The USNC Secretary-Treasurer functions were next performed over the 2000-2004 period under contract by the North American Electric Reliability Council (NERC) under Virginia C. Sulzberger, NERC's Director-Engineering and USNC Secretary-Treasurer. Virginia C. Sulzberger, as an independent contractor, also performed the USNC Secretary-Treasurer functions from 2005 through 2008.

Beginning in 2009, the Secretary-Treasurer functions were divided into elected, volunteer, and separate Secretary (Charles (Ted) Witham, Telemetric Corporation) and Treasurer (Thomas W. Cease, Consultant) positions and a contracted Secretariat (Texas A&M University) function. USNC Vice President-Administration Dr. B. Don Russell, Regents Professor-Electrical Engineering, oversees the USNC's Secretariat function at Texas A&M University.

U.S. National Committee Membership

The two general categories of CIGRÉ membership include:

- **Individual Member (IM)** – individuals such as engineers, managers, researchers, and professors, etc. are Type I individual members. CIGRÉ honorary members are also individual members. Students and young engineers (under 35) are Type II individual members and pay 50% of the annual individual Type I membership fee. The USNC's

individual membership (mainly Type I) has averaged about 350 members over the last five years. The high mark of USNC individual membership over the last 10 years was 434 in 2003.

- **Collective Member (CM)** – public or private enterprises of an industrial and/or commercial nature, administrative bodies, scientific and technical organizations, and research institutes are Type I collective members. Educational bodies such as universities, colleges, and libraries are Type II collective members and pay 50% of the annual collective Type I membership fee. The USNC’s collective membership (mainly Type I) has averaged about 23 members over the last five years. Collective membership has been increasing and reached a high mark of 29 members in 2008.

The USNC for many years has been one of the top five national committees of CIGRÉ from a membership perspective. As CIGRÉ activities increased in value and importance, growth in equivalent (IMs plus CMs, where a CM = 5 IMs) CIGRÉ membership in the USNC grew from 79 members in 1970 to a high of 577 members in 1999 with USNC membership averaging about 465 members over the last five years.

Many executives and top managers from utilities and equipment manufacturers were individual USNC members through the last decades. In addition to individual membership, many companies, including some utilities, equipment manufacturers, and consultants, were “collective” members, which covered a number of individuals in their respective organizations.

CIGRÉ Study Committee Chairmen from the U.S. National Committee

From its beginning, CIGRÉ’s technical activities have been organized into Study Committees. The direction of these activities and their success depended in large measure on the leadership of the Study Committee Chairman in selecting “preferential subjects” for discussion and the Chairman’s skill in developing international cooperation in the ongoing activities. The USNC played an important role, having provided the following Study Committee Chairman through the years.

CIGRÉ Study Committee Chairmen from the USNC

Study Committee	Subject	Years	Chairman
1, 15, and D1	Material for Electrotechnology	1992-1998	Clive W. Reed
2, 21 and B1	H.V. Cables	1970-1974	A. Sidney Brookes
3, 13 and A3	Switching Equipment	1996-2002	John H. Brunke
4, 34, and B5	Relaying	1980-1986	Stanley H. Horowitz
9	A.C. Very High Voltages	1945-1960	Philip Sporn
9, 31	A.C. Very High Voltages	1960-1968	Howard C. Barnes
10, 14, and B4	Direct Current	1988-1996	Narain G. Hingorani
Former 13, 32	Power System Stability	1947-1960	S.B. Crary
Former 13 and 32	Power System Stability	1960-1970	Charles Concordia
31, 32	System Planning and Operation	1964-1982	Charles Concordia
37	System Planning and Development	1982-1983	Ted J. Nagel
38 and C4	Power System Analysis and Techniques	1986-1992	Ralph S. Gens
41	Future of Electric Power Systems	1976-1982	Lionel O. Barthold
C5	Electricity Markets and Regulation	2002-2008	Kenneth W. Laughlin

CIGRÉ and USNC Awards to U.S. National Committee Members

For their role in international CIGRÉ activities and U.S. National Committee activities , a number of USNC members have received special awards from CIGRÉ and the U.S. National Committee.

- CIGRÉ Honorary Member - The title “Honorary Member” was initiated by CIGRÉ in 1992. It is the most prestigious designation to be granted by CIGRÉ. It is awarded to members who have made significant contributions through their service on international committees (CIGRÉ Steering Committee (formerly Executive Committee), Administrative Council, and/or Study Committees.) These USNC’s CIGRÉ Honorary Members are listed below:

CIGRÉ Honorary Members from the USNC

1992	Ralph S. Gens
1992	Willis S. White, Jr.
1996	Dr. Narain G. Hingorani
1998	Dr. Clive W. Reed
2000	Harold N. Scherer, Jr.
2002	Dr. John H. Brunke
2004	Hans E. Weinrich

- CIGRÉ Technical Committee Award - Others from the USNC that received awards from the CIGRÉ Technical Committee are listed below. The Technical Committee Award was initiated by CIGRÉ in 1993. It is given to recognize the outstanding contributions of a select number of CIGRÉ Study Committee members to the work of their respective Study Committees. Generally, only one or two candidates are nominated annually per CIGRÉ Study Committee.

CIGRÉ Technical Committee Awards to USNC Members

Year	USNC Award Recipient	CIGRÉ Study Committee
1993	D. Jack Christofersen	DC Links and Power Electronic Equipment
	Allan Greenwood	Switching Equipment
	Charles L. Rudasill, Jr.	Power System Planning and Development
	William A. Mittelstadt	Power System Analysis and Techniques
1994	Andrew R. Hileman	Overvoltages and Insulation Coordination
	John W. Chadwick, Jr.	Protection
1995	Thomas L. Weaver	DC Links and Power Electronic Equipment
	Raymond M. Maliszewski	Power System Planning and Development
	Arun G. Phadke	Protection
	Leonard Sagan	Power System Electromagnetic Compatibility
1996	John A. Casazza	Power System Planning and Development
1997	William N. Kennedy	Transformers
	Mark A. Reynolds	HVDC Links and AC Power Electronic Equipment
	Ingo P. Thurein	Power System Operation and Control
1999	Joe C. Pohlman	Overhead Lines
2000	Robert E. Fenton	Rotating Machines
	B. S. Bernstein	Materials for Electro Technology
	Charles J. Mozina	Power System Protection and Local Control
	Erich W. Gunther	Power System Electromagnetic Compatibility
2001	William F. Reinke	Power System Planning and Development
2002	Ivars Vancers	HVDC Links and AC Power Electronic Equipment

Year	USNC Award Recipient	CIGRÉ Study Committee
2003	Keith E. Lindsey	Overhead Lines
2004	John W. Harley	Transformers
2005	John J. Vithayathil	HVDC Links and Power Electronics
	Roy W. Alexander	High-Voltage Equipment
	Mietek T. Glinkowski	Transformers
2006	Dennis K. Holstein	Protections and Automations
	Pouyan Pourbeik	System Technical Performance
2007	Alexander Apostolov	Protection and Automation
	Dale A. Douglass	Overhead Lines
	Walter Zenger	Insulated Cables
2008	Richard A. Wakefield	System Development and Economics
2009	Willis F. Long	HVDC and Power Electronics
	Albert M. DiCaprio	Electricity Markets and Regulation

- CIGRÉ Distinguished Member Award - In 1996, a “Distinguished Member” status was introduced in CIGRÉ. This award is a tribute to seniority (over 10 years membership) and to active participation in the work and development of the CIGRÉ association – within Study Committees and/or National Committees.

CIGRÉ Distinguished Member Awards to USNC Members

1996 Lionel O. Barthold John H. Brunke John A. Casazza Stanley H. Horowitz George A. Maneatis Clive W. Reed Harold N. Scherer, Jr. Thomas L. Weaver	1998 Allan Greenwood James A. Oliver Carson W. Taylor	2000 Thomas F. Garrity Ian S. Grant Thomas E. Sharp	2002 F. Paul DeMello Frank A. Denbrock Arun G. Phadke Hans E. Weinrich
2004 Harold W. Adams, Jr. Alan H. Cookson Hamid Elahi Robert E. Fenton Stanley R. Lindgren	2006 Thomas W. Cease Clark W. Gellings Stig L. Nilsson William F. Reinke Tapani O. Seppa Virginia C. Sulzberger	2008 John W. Harley Dennis K. Holstein Keith E. Lindsey Pouyan Pourbeik Mark A. Reynolds Walter Zenger	2010 Narain G. Hingorani Willis F. Long Ivars Vancers Richard A. Wakefield

- USNC Philip Sporn Award - In addition to the CIGRÉ international awards, the U.S. National Committee presents awards to its qualifying members. The Philip Sporn Award is given from time to time to a person who has had some affiliation with CIGRÉ and who is currently active. The citation reads “for cumulative career contributions to the advancement of the concept of system integration in the theory, design, and/or operation of large, high voltage electric systems in the United States.”

USNC Recipients of the USNC Philip Sporn Award

1989	Charles Concordia
1993	Lionel O. Barthold
1994	John A. Casazza
1995	Gregory S. Vassell
1998	A. Robert Hileman
2002	Harold N. Scherer, Jr.
2005	Narain G. Hingorani
2006	Arun G. Phadke
2007	Hans E. Weinrich
2008	John J. Vithayathil
2009	John G. Anderson
2009	Carson W. Taylor
2010	John H. Brunke

- USNC Attwood Associate Award - The USNC's Attwood Associate Award is given to individuals who have made notable contributions to CIGRÉ over an extended period of time. This award is made to honor the contributions and memory of Frederic Attwood of the United States, who, with Jean Tribot-Laspière of France, foresaw the need for an international organization in the field of high-voltage power engineering and who became the first chairman of the U.S. National Committee upon the founding of CIGRÉ in the year 1921.

USNC Recipients of the USNC Attwood Associate Award

<p><u>1983</u> Howard C. Barnes Sterling Beckwith Peter L. Bellallschi Fred Chambers Charles Concordia Fremont Felix Eric T. B. Gross Herman Halperin Richard J. Hopkins Lloyd F. Hunt Edgar L. Kanouse John T. Lusignan Melvin L. Manning Howard L. Melvin Stephen B. Morehouse Lawrence M. Robertson Eugene C. Starr Herbert R. Stewart Joseph Sticher Roy L. Webb Stanley W. Zimmerman</p> <p><u>1984</u> Charles Almon, Jr. Eugene W. Boehne Thomas J. Brosnan William Z. Brownlee</p>	<p>Sampson Linke J. R. Ruhlman T. M. Swingle Charles L. Wagner</p> <p><u>1989</u> John G. Anderson</p> <p><u>1990</u> John W. Chadwick, Jr. John J. Dougherty Ralph S. Gens Stephen A. Mallard James C. Poffenberger Louis H. Roddis, Jr.</p> <p><u>1991</u> Wallace L. Chadwick C. John Essel S. Harold Gold Herbert H. Woodson</p> <p><u>1992</u> Lionel O. Barthold</p> <p><u>1993</u> Andrew F. Corry A. Robert Hileman</p>	<p><u>2002</u> S. A. Annestrand Thomas F. Garrity M. Shawky A.A. Hammam Stephen A. Sebo Frank S. Young Luciano E. Zaffanella</p> <p><u>2003</u> James S. Edmonds John W. Estey Clark W. Gellings Stig L. Nilsson William F. Reinke</p> <p><u>2004</u> George G. Karady Willis F. Long Duane R. Torgerson Hans E. Weinrich</p> <p><u>2005</u> Alan H. Cookson Frank A. Denbrock Anthony M. Di Gioia, Jr. Philip R. Nannery John J. Vithayathil</p>
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<p>Bradley Cozzens Edward S. Halfmann Charles T. Hatcher Allen Kidder Vernon M. Marquis Theodore Nagel George B. Scheer Richard F. Stevens Edwin R. Whitehead</p> <p><u>1985</u> Joseph K. Dillard Byron Evans Charles H. Hoffman Hollis K. Sels Robert W. Werts Eugene S. Zobel</p> <p><u>1986</u> J. Lewis Blackburn Daniel T. Braymer John A. Casazza Clifford C. Diamond I. Birger Johnson</p> <p><u>1987</u> Louis C. Aicher John W. Batchelor Vincent Caleca Thomas W. Dakin Lee A. Kilgore Robert J. Ringlee Frank Von Roeschlaub Walter R. Wilson</p> <p><u>1988</u> James A. Beehler Allan Greenwood Thomas H. Lee</p>	<p>Joe Pohlman Charles L. Rudasill, Jr. David Silver</p> <p><u>1994</u> F. Paul De Mello Thomas Dy Liacco</p> <p><u>1995</u> Theodore A. Balaska</p> <p><u>1996</u> Clarence Baldwin William J. McNutt Jan Panek William Thue</p> <p><u>1997</u> Stanley H. Horowitz</p> <p><u>1998</u> Glenn D. Bauer Lester H. Fink Robert W. Flugum Narain G. Hingorani Harold N. Scherer, Jr.</p> <p><u>1999</u> Vernon L. Chartier Ian S. Grant Robert H. Harner Raymond M. Maliszewski James A. Oliver Arun G. Phadke John M. Thorson, Jr. T. Robert Woodward</p> <p><u>2000</u></p> <p><u>2001</u></p>	<p><u>2006</u> Anjan Bose Thomas W. Cease Chen-Ching Liu B. (Ben) R. Shperling James S. Thorp Thomas L. Weaver</p> <p><u>2007</u> John H. Brunke D. Jack Christofersen Robert E. Fenton Stanley R. Lindgren Clive W. Reed Herman M. Schneider Tapani O. Seppa Virginia C. Sulzberger</p> <p><u>2008</u> Harold W. Adams, Jr. Hamid Elahi Mladen Kezunovic Carson W. Taylor</p> <p><u>2009</u> John W. Harley Shirish P. Mehta Nicholas W. Miller Rana Mukerji P. Jeffrey Palermo Mark A. Reynolds</p> <p><u>2010</u> George Gela George Gross Dennis K. Holstein Keith E. Lindsey Richard A. Wakefield Walter Zenger</p>
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CIGRÉ Publications of U.S. National Committee Members

The contributions of the USNC members to CIGRÉ and worldwide technical knowledge are demonstrated by the many CIGRÉ papers and articles they authored, the many key discussions in which they participated, and the symposia they helped organize. The CIGRÉ papers presented at the biennial Paris meetings are available at the U.S. Library of Congress and CIGRÉ Paris headquarters.

Both CIGRÉ members and non-members have access to the new (2007) CIGRÉ online library (www.e-cigre.org) for obtaining CIGRÉ publications. Many of these publications are now available in electronic format for downloading by members, and hard copies of the non-digitized

publications are also available through the CIGRÉ Paris headquarters. CIGRÉ members enjoy significant benefits in accessing CIGRÉ publications both in terms of speed of delivery and in reduced fees charged for hard copies.

Through 2008, the U.S. National Committee membership contributed over 325 papers to CIGRÉ Sessions. If all papers involved with the CIGRÉ Sessions, CIGRÉ symposia, and special Study Committee reports are counted, including those papers in which U.S. authors participated but were not the main author, the USNC's contribution to total CIGRÉ publications approaches 550 papers or reports through 2008.

One can map the change of the times and what became important to U.S. Cigreans by reviewing the subject material of their papers as time progressed. In the 1920s and 1930s, overvoltage and insulation coordination dominated the U.S. reports made to CIGRÉ at 30% of the total U.S. reports produced. That was followed by transmission systems (22%) in the decade of the twenties, and insulators (16%) in the short decade of meetings in the thirties. Over the following four decades, the transmission system was the predominant topic growing to 40% of the reports produced in the 1950s and 1960s. Generation edged out direct current (DC) topics in the U.S. reports in the 1980s, but DC dominated in the 1990s and the early 2000s.

While listing the over 325 papers contributed by U.S. authors to CIGRÉ is not possible in this chapter, it is appropriate to remember a sampling of those early USNC members who worked hard to produce their reports and contributed greatly to the benefit of the electric industry. Therefore, noting a few authors and their papers in the context of the times in which the papers were developed seems the highest recognition the USNC can give its entire group of authors.

The first five papers authored by USNC members were for the inaugural CIGRÉ meeting in 1921 and are listed below. The industry has come a long way since these 1921 papers were written, but without these authors and their international peer reviewers, it is unlikely that the USNC and CIGRÉ would have advanced.

<u>U.S. Authors</u>	<u>U.S. Paper Titles (1921)</u>
M.W.S. Murray	Creation of an Electric Interconnection System in the Areas between Boston and Washington
W.W. Lewis	High Voltage Electricity Transmission
C.A. Powell	Some Aspects of the Problem of Switchgear with a View to Its Adaptation to High Voltage Transmission
A.O. Austin	The Insulation of Transmission Systems Comprising Large High Voltage Lines
F.W. Peek	Factors on Which the Insulation of Transmission Lines Depend

The next U.S. authors being recognized are those who were the last to write their USNC papers just prior to the cessation of CIGRE meetings due to World War II. Curiously, there also were five papers that year and "that year" was 1939.

<u>U.S. Authors</u>	<u>U.S. Paper Titles (1939)</u>
P.L. Bellaschi	Coordination and Protection of Station Insulation against Lightning
P. Sporn, I.W. Gross	The Counterpoise, Its Theory, Application and Performance in Reducing High Voltage Transmission Line Outages
W.W. Lewis	Lightning Currents on Transmission Lines
J.J. Taylor	Duration of Load and Its Influence on the Strength of Suspension Insulators
P. Sporn, C.A. Muller	Experience with High-Speed Fault Clearing and Ultra High-Speed Reclosing of High Voltage Transmission Lines

Many questions still remain today about some of these subjects even though the 1939 authors may have believed that the improvements the electric industry was to achieve would have solved most of these technical problems.

The third group of U.S. authors being recognized are those who were the first from the USNC to submit papers once CIGRÉ commenced its activity at the conclusion of the war. The U.S. had 17 delegates in attendance at the 1946 CIGRÉ Session, and the following seven U.S. papers were discussed. The rapid recovery of the collaborative process within CIGRÉ was amazing.

U.S. Authors

U.S. Paper Titles (1946)

L. Bellaschi	Progress in Power Transformer Insulation and Protection
P. Sporn, J.H. Kinghorn	Ultra High Speed Reclosing Demonstrates Its Value
O.K. Marti	Status of Mercury Arc Power Rectifiers
R.E. Pierce	Interconnected Power System Automatic Load Frequency Control
P.M. Ross	Calculation of Power Station Insulators for Optimum Impulse Performance
C. Doble	Advances in Maintenance of High Voltage Insulation in the USA
W.W. Lewis	Lightning Investigation on Transmission Lines

These 17 papers and their authors are perhaps not more worthy of note than those of their more recent or earlier colleagues, but they do reflect to some degree the interests of the electric industry at three points in time. In large measure, the ability for the electric industry to continue to progress as it has was made possible because of the dedicated efforts of these authors and their CIGRÉ colleagues to bring solutions and share experiences so that all of CIGRÉ membership might benefit, improve their systems, and operate a more reliable and environmentally friendly electric system within fiscal constraints imposed by regulators and customers and within a reasonable bound of nature's more dramatic forces. CIGRE, and indeed all large electric systems, owe much to these men and women who provided the intellectual capital, labored within diverse committees to understand and collaborate, and then produce the papers that were the very catalysts of improvement for the electric industry. It is clear that the electric industry would not have achieved what it has without them.

In Conclusion

The first document prepared on the "History of the U.S. National Committee of CIGRÉ" covered the 1921 - 2007 period. It was prepared at the request of USNC President Clark W. Gellings by John A. Casazza, a distinguished member of the U.S. National Committee and CIGRÉ since the 1960s. This detailed USNC History document is available on the USNC website (<http://cigre-usnc.tamu.edu>) and was the basis for this short chapter on the history of the USNC. The 2007 USNC History document also lists the publications of the U.S. authors from 1921 through 2007. The intent is to maintain the detailed USNC History document as a living document and to update it from time to time.