

Annual  
Report **2016**



# 1. INTRODUCTION TO IGU

The International Gas Union (IGU) was established in 1931. Its vision is to be the most effective and independent non-profit organisation serving as the spokesperson for the gas industry worldwide. As of 31 December 2016, the organisation had 152 members from all over the world. The members are the most representative gas entities in a country, or companies with physical or commercial assets related to the exploration and production, storage, transmission, distribution or trading/marketing of natural gas, or having an interest in advancing the global gas industry.

Until 2003, IGU membership typically consisted of national gas associations or national gas companies with only one member from each country. New members were initially approved as observer members and could later become Charter members.

Following the amendments to the IGU Articles of Association (AoA), approved in September 2002, all current members automatically became Charter members as of 1 January 2003. From then on, companies from any Charter member country and involved in the gas industry could join the IGU as Associate members. Significant interest in becoming an Associate member has pre-

vailed and, with this additional membership model, the IGU has broadened its knowledge base and network. In the Council meeting in Paris on 1 June 2015 the Council approved the establishment of a new type of member and a new fee structure. The member category “Premium Associate member” is presently limited to ten, which come from the Associate members. The ten Premium Associate members will have one vote each in the Council meeting and the right to propose candidates for chairing committees.

In addition, the requirement for companies having to own gas assets in order to become Associate members has been lifted. Now companies without assets, but with strong interest in gas can become Associate members.

IGU has decided to focus more on advocacy, and the re-structuring of membership fees was done to accommodate this. The fee structure has been revised with an increase in the basic fee. In addition, a fee for Charter members who have a total production/consumption of gas above two different levels has been introduced so that the Charter member fee is now divided into three different levels.

## **Vision and mission**

As the global voice of gas, IGU seeks to improve the quality of life by advancing gas as a key contributor to a sustainable energy future.

IGU is the key and credible advocate of political, technical and economic progress of the global gas industry, directly and through its members and in collaboration with other multilateral organizations.

IGU works to improve the competitiveness of gas in the world energy markets by promoting transparency, public acceptance efforts and the removal of supply and market access barriers.

IGU seeks to collaborate with governmental agencies and multilateral organizations to demonstrate the economic, social and environmental benefits of gas in the global energy mix.

IGU supports and facilitates the development of new technologies and best practices, while emphasizing sound environmental performance, safety, reliability and efficiency across the entire value chain.

IGU maximizes the value of its services to members and other stakeholders. Together, IGU members represent more than 97% of the world's gas market. As a result of the advance of natural gas in the world's energy balance and the increasing number of countries where gas is being used or is emerging, the IGU is expanding its network in developing countries.

Increasingly, the IGU has directed its attention towards the sustainable aspects of natural gas. To this end, it organises the World Gas Conference (WGC), the IGU Research

Conference and co-organises the LNG conferences. In addition, IGU currently manages eleven Committees that study all aspects of the gas industry from the wellhead to the burner tip:

» **Exploration & Production**

» **Storage**

» **Transmission**

» **Distribution**

» **Utilisation**

» **Sustainability**

» **Strategy**

» **Gas Markets**

» **LNG**

» **Marketing &**

**Communication**

» **R&D and Innovation**

Special Task Forces are established according to the issues regarded as requiring particular attention at the time. The Committees present their work to the WGC every three years as well as presenting intermediate reports during the triennium. For the 2015–2018 Triennium, two Task Forces have been established: the Strategic Com-

munications and Outreach Task Force and the Workforce Development Task Force. A more detailed description of the IGU's mission and objectives can be found on the IGU website, [www.igu.org](http://www.igu.org).

### 1.1. The IGU Secretariat

The Secretariat had been hosted by Statoil and based in Norway until the end of October 2016. And then the Secretariat was transferred to Spain for a coming period of six years. Gas Natural Fenosa, the current host company of the Secretariat, provides representative offices with all necessary administrative support.

In this triennium special focus has been placed on the Executive Committee and Council meetings in order to make them more efficient and pave the way for more discussion in the meetings.

The Secretariat runs a secondment programme and is currently hosting one secondee from its membership community. The IGU provides office facilities while the employer covers salary and expatriate costs during the assignment period. The IGU can offer international experience, enhanced knowledge of the international gas industry and administrative responsibilities. The IGU has gained substantial benefit from the secondment programme. The persons who are seconded provide the Secretariat with important additional capacity and expertise, which has enabled the IGU to take on new responsibilities.







## 2. IGU ACTIVITIES IN 2016

### 2.1. G20 Natural Gas Day

In June 2016, a special G20 Natural Gas Day was jointly hosted by IGU and the National Energy Administration of China to explore the different ways that gas can contribute to a sustainable energy future. The event was held one day before the G20 Energy Ministers meeting and invited delegates to discuss global energy governance. The message on gas as a clean and necessary sustainable fuel was included in the G20 Energy Ministerial Meeting communiqué for the first time.

### 2.2. 5th IGU-IEF Ministerial Gas Forum

The biannual IGU-IEF Ministerial Gas Forum has become an important forum bringing policy makers and industry to the table to discuss the actions that need to be taken in order to push up gas as a key contributor to the sustainable energy mix. The 5th edition took place in New Delhi, India, on

December. Hosted by the Government of India and supported by GAIL (India) Limited and Natural Gas Society of India, and under the theme of “Gas for Growth; improving economic prosperity and living standards”.

### 2.3. Other activities

In December 2016, the IGU, the Ministry of Petroleum Resources of Nigeria and the World Bank co-organised a Gas Competence Seminar in Abuja, Nigeria, with invited delegates and speakers from the region - from industry, the Government and International Organisations. The Ministry of Petroleum Resources presented a high level road-map to end routine gas flaring by 2020 for deliberation by participants.

Further, Diplomatic Gas Forums were arranged in three different places - Amsterdam in October, Washington DC in November and Oslo in December. The forum is based on the experience from earlier diplomatic forums arranged in Norway.

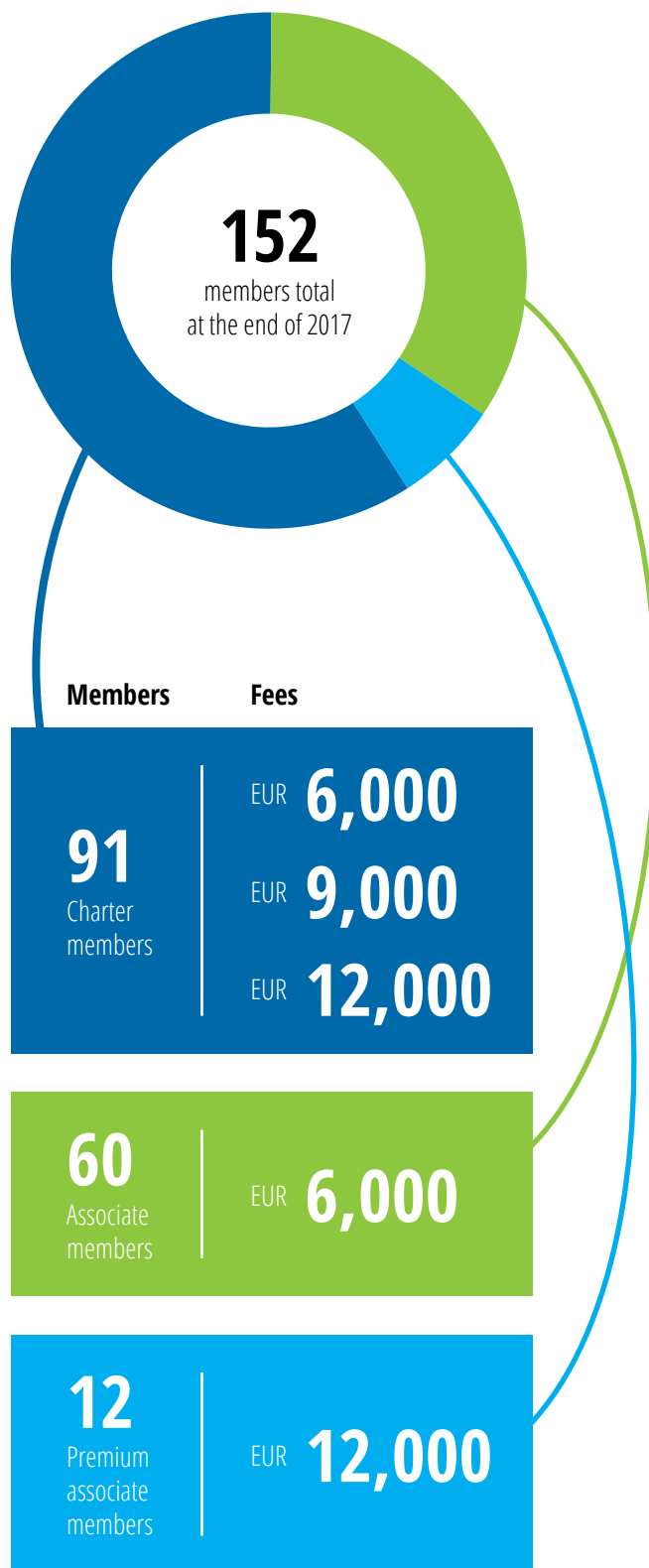
## 2.4. New members

In 2016, the IGU Council approved the following new Associate members:

- Berkeley Research Group, LLC, USA
- Edison Spa, Italy
- Linde AG, Germany
- Natural Gas Society (NGS), India
- PwC, The Netherlands
- Samsung Engineering Co. Ltd., Republic of Korea
- China Petrochemical Corporation (Sinopec), P.R. of China

The total membership at the end of 2016 amounted to 152, of which 90 were Charter members, 10 were Premium Associate members, and 52 were Associate members. The IGU members' list is enclosed.

The membership fee of the year 2016 for the Charter members was EUR 6,000, EUR 9,000 or EUR 12,000 based on the country's gas production and gas consumption and G20 membership. The membership fee for the Premium Associate members was EUR 12,000 and the membership fee for the Associate members was EUR 6,000.



# 3. MEETINGS OF IGU BODIES

The IGU's governing bodies are the Council, the Executive Committee (EXC) and the Coordination Committee (CC). The Council is the main ruling body of the IGU in which each member is represented. The EXC governs the IGU in accordance with the aims and means approved by the Council.

The Secretariat ensures that IGU business is conducted in accordance with the Articles of Association (AoA) and the directions of the President, the Council, the EXC and the Management Team.

The function of the CC is to coordinate the activities of the IGU Committees and Task Forces and to provide for all arrangements relevant to the Triennial Working Programme (TWP) for the next WGC.

During 2016 the following meetings of these bodies took place:

## **Council:**

- Council Meeting Electronic Session  
9-23 May 2016
- Amsterdam, The Netherlands 19-20  
October 2016

## **Executive Committee:**

- Durban, South Africa 6 April 2016
- Amsterdam, The Netherlands 19  
October 2016

## **Coordination Committee:**

- Durban, South Africa 5 April 2016
- Amsterdam, The Netherlands 18  
October 2016

## 3.1. Cooperation with International Organisations

The IGU is generally aiming to increase cooperation with other international organisations to avoid overlap, to benefit from each other's activities and work programmes and to increase its visibility on the global arena.

### **International Energy Agency (IEA)**

The IGU cooperates closely with the IEA with representatives from the IEA participating in various IGU events and with IGU contributions to IEA events.

### **World Bank (WB)**

The IGU and The World Bank have signed a two-year MOU (September 2014) on collaboration in carrying out activities conducive to enhancing technology and knowledge exchange. The initial planning meeting took place in November 2014. The IGU, together with The World Bank and potentially other international organisations, will work out a programme for 2015–2016 in which conferences, possible training programmes and other activities will be discussed.

### **GasNaturally Initiative**

The IGU participated in GasNaturally's (GN) Member States' Gas Forum 2016. IGU hosted an event at the Gas Week 2016 in Strasbourg, where the 2nd edition of the Urban Air Quality report was presented with Members of the European Parliament present. The IGU has also participated in most of the GN Steering Committee (SC) in Brussels throughout the year.

### **United Nations Economic Commission for Europe (UNECE)**

The IGU has participated in several meetings at the UNECE both as speaker and in panel discussions. The IGU and UNECE are also in the planning phase of establishing a Gas Industry Advisory Board.

### **International Energy Forum (IEF)**

The IGU and IEF organise the Ministerial Gas Forum every two years to bring together industrial and political leaders to discuss the role of natural gas in energy policies around the world.

### **The G20 Energy Sustainability Working Group (ESWG)**

The IGU has attended meetings in the ESWG and related workshops since 2013. The topics have related to transparency and investments, gas market dialogue, global energy architecture, energy efficiency and access to sustainable energy.

### **World Energy Council (WEC)**

The Secretary General of the IGU represents the Union in the meetings of the Executive Assembly of World Energy Council, and the IGU normally participates in the gas sessions of the World Energy Congress organised by the WEC.

### **World Petroleum Council (WPC)**

The IGU normally participates in the natural gas sessions at the Congresses organised by the World Petroleum Council and the Secretary General attends its annual meetings.

## **3.2. Affiliated organisations**

It is the declared policy of the IGU to increase and rationalise co-operation with other international organisations within the

energy sector. The expression “affiliation” might be used to describe a closer pragmatic working co-operation and rationalisation between the IGU and a number of global or regional organisations within the energy industry.

An organisation/association that is “Affiliated with the IGU” should fulfil the following criteria:

- An independent entity dealing only or primarily with gas
- A global or regional entity with members in more than one state
- An entity which deals with issues of interest to the IGU, which may become either an integrated or separate part of the current TWP.

In such cases an agreement may be entered into between the parties, stipulating that the entity in question is Affiliated with the IGU. By the end of 2016 the following organisations were Affiliated with the IGU:

- Energy Delta Institute (EDI)
- Gas Technology Institute (GTI)
- GERG (European Gas Research Group)
- Gas Infrastructure Europe (GIE)
- The International Group of Liquefied Natural Gas Importers (GIIGNL)
- NGVA Europe
- NGV Global (IANGV) (Earlier: International Association for Natural Gas Vehicles)
- The International Pipeline & Offshore Contractors Association (IPLOCA)
- Marcogaz,
- Pipeline Research Council International, Inc (PRCI)
- Russian National Gas Vehicle Association (NGVRUS), and the
- World LPG Association



## 4. PUBLICATIONS

As the global voice of gas, IGU seeks to improve the quality of life by advancing gas as a key contributor to a sustainable energy future. Official publications by the IGU are an important means to accomplish this. These publications, consisting of various position papers, recommendations and results of IGU-organised or joint studies, serve to enhance the image, authority and global reach of the IGU in a local and global gas context. Such publications are available either online and/or in printed form.

### The types of IGU publications are defined as follows:

1. Papers and Reports produced by IGU Committees and Task Forces under the umbrella of the CC
2. Papers and Reports commissioned by the IGU Presidency and/or Secretariat
3. Papers and Reports presented during conferences
4. Joint publications with other organisations

### The following publications could be found on the IGU website:

- IGU Articles of Association
- Triennial Work Programme
- IGU Organization Chart
- IGU General Brochure
- Global Gas Markets Supporting Growth and Sustainability (December 2016)
- Case studies Improving Air Quality, Second edition (November 2016)
- IGU Wholesale Gas Price Survey (May 2016)
- Case studies Enabling Clean Energies (April 2016)
- IGU World LNG Report (April 2016)



## Previous publications

- Case Studies in Improving Urban Air Quality (October 2015)
- IGU Gas Price Report (July 2014, May 2015)
- IGU World LNG Report (April 2014, June 2015)
- Biogas - from refuse to energy (May 2015)
- Prospectus for Natural Gas (May 2015)
- Global Vision for Gas: the Pathway towards a Sustainable Energy Future (June 2012)
- IGU Shale Gas: the Facts about the Environmental Concerns (June 2012)
- Natural Gas - Part of the Solution to Global Climate Change (2010)
- Natural Gas Unlocking the Low-Carbon Future (September 2010)
- Natural Gas as a Transportation Fuel (November 2009)
- IGU Guiding Principles for Sustainable Development (October 2009)

## Scientific and technical papers and documentation

- Proceedings of the 26th World Gas Conference, Paris, France (2015)
- Proceedings of the 25th World Gas Conference, Kuala Lumpur, Malaysia (2012)
- Proceedings of the 24th World Gas Conference, Buenos Aires, Argentina (2009)
- Proceedings of the 23rd World Gas Conference, Amsterdam (2006) (CD-ROM)
- Sustainable Development and the Role of Gas (2006)
- Gas to Power Global Outlook (2006)
- The Art of Regulation (2006)
- Proceedings of the 22nd World Gas Conference, Tokyo, Japan (2003)
- Proceedings of the 17th, 18th, 19th,

20th and 21st World Gas Conferences (CD-ROM)

- International Gas Union, ISC, all issues of the bi-annual IGU Magazine from 2004-2016

Most of the publications listed above can be found on the website together with further information regarding IGU activities.



# 5. COMMUNICATION AND ADVOCACY

Communication both within the IGU organisation, and in particular with stakeholders outside the gas industry, such as policy makers and regulators, has been a priority area in 2016.

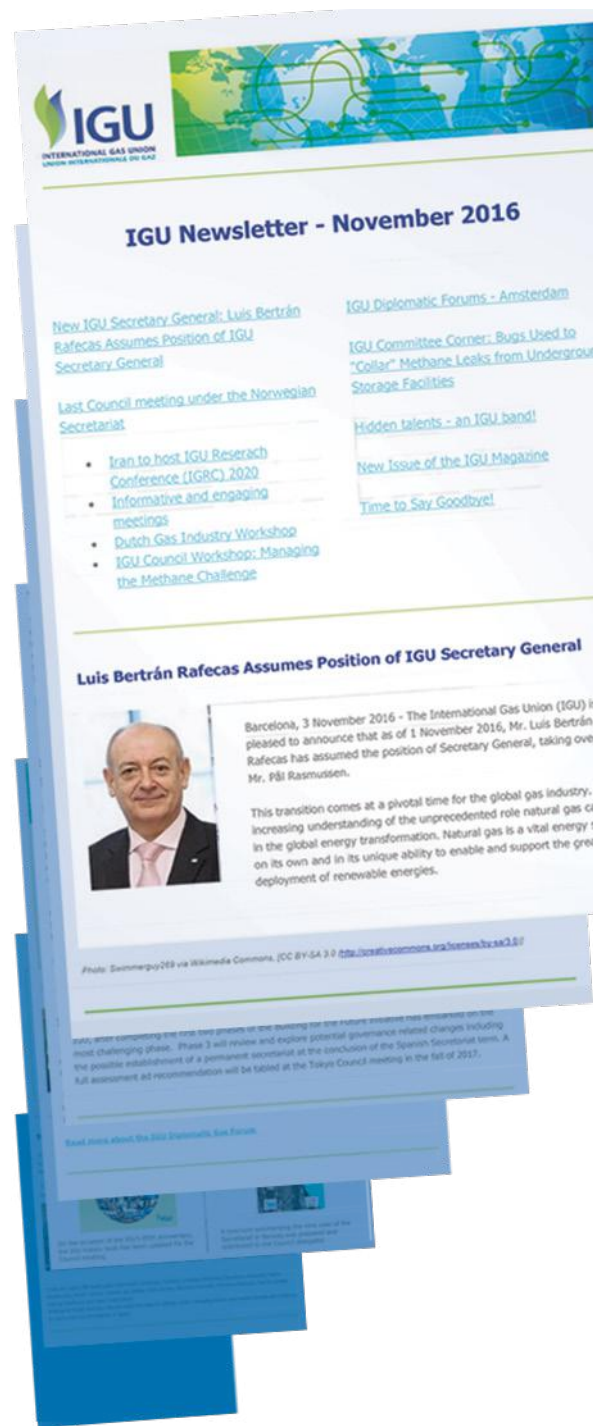
The IGU was pleased to present the second in its series of “Case Study” reports, which presents case studies of how natural gas supports and enables the greater deployment of clean energies. “Case Studies, Enabling Clean Energies” was submitted to the 2016 G20 Energy and Sustainability Working Group (ESWG) at its meeting in Shenzhen, China, 12-14 April. At the G20 meeting in June, the final G20 Ministerial Communiqué made a specific reference to the important role of gas in the energy mix.

Urban air pollution has become a top priority for local, national and international governments in both developed and developing countries as they seek to reduce severe effects on human health. Following the successful release of the IGU’s Urban Air Quality report at COP 21, the second edition of this report was released in November 2016 at an event with Members of the European Parliament present.

The IGU has worked closely with the PR firm Ketchum on establishing good relationships with journalists of global media outlets and journalists of publications such as Bloomberg, Wall Street journal, The Economist, Financial Times and similar. One-to-one meetings with the press have been prioritised over press conferences.

The website and social media channels have witnessed an increased number of visitors and followers. The number of visitors to the IGU website and the amount of time visitors spend on the site has grown steadily. The number of LinkedIn followers is also growing organically. An IGU Twitter account, @IGU.News, was also launched in February 2016. Through a high number of tweets per day and some paid campaigns, we have been able to attract 2,300 followers (January 2017).

The IGU Newsletter was redesigned in 2015 with a new approach and longer articles. The aim is for committees, regional coordina-





tors, the presidency and secretariat to contribute through content articles, interviews, research articles and similar. The newsletter should reflect the work of the whole IGU organisation.

The IGU maintains a close relationship with members by attending annual meetings and special events – whenever possible. In 2016 the President, the Secretary General, the CC Chair, the Vice President, the Immediate Past President and dedicated members from IGU Committees and the Secretariat gave presentations at numerous events both within the IGU and externally.

## **5.1. Building for the future**

In light of the changes in the global gas markets and the growth of the Union in recent trienniums, the “Building for the Future” (BTF) project was introduced at the IGU in October 2014 during the IGU Council meeting in Berlin. This was also an action in response to a survey launched by the incoming U.S. Presidency discussing IGU membership in 2014, in which three quarters of the members responded that the IGU’s growing advocacy was of extreme importance to them.

### **The project’s objectives are as follows:**

- Ensure a platform for growth and continuity in IGU and further ensure that it is properly positioned for the future

### **The project was divided into three phases. BTF Phase I included a review and recommendations in the following areas:**

- The IGU Vision and Mission
- A new membership model
- Revised membership fees
- Changes to the Articles of Association (AoA)

The main purpose of BTF phase I was to strengthen the financial situation at IGU by restructuring the membership fee structure that would allow for better funding of the gas advocacy ambitions including: Institutionalizing the Global Voice of Gas (GVG) and establishing a Strategic Partnership Strategy. The Council approved Phase I of the project - New Membership Class and Fee Structure in the Council Meeting in Paris, France on 1 June 2015.

Phase II of the BTF project is a strategic review of the IGU events - how IGU can optimise its events in terms of strategic policies, branding/ positioning, conference programme, commercial model and organisational model. The mandate for BTF Phase II was approved at the EXC meeting in Cartagena on 21 October 2015. At the EXC meeting in Durban on 6 April 2016, the EXC approved the recommended implementation and action plan in accordance with five improvement areas for the IGU event portfolio. The recommendations are:

- **Strategic policies:** establish steering committees (SCs) for all individual events.
- **Branding/positioning:** establish a branding guideline
- **Conference Programme:** shall be presented, discussed and approved by the SC
- **Commercial model:** the working group to prepare a recommendation for the EXC approval.
- **Organisational model:** implement an Event Manager under the IGU Secretariat

At the EXC meeting in Amsterdam in October 2016, the EXC discussed and supported the Working Group to assess, prepare and recommend potential changes to the governance and structure of the IGU inclusive of the possible establishment of a permanent Secretariat.



# 5. THE IGU WEBSITE



The IGU website, [www.igu.org](http://www.igu.org), contains information aimed at informing the public about gas. The information is updated with news and other information related to gas. The old information has been moved to the "Members' log in site".

## IGU organisation as of 31 December 2016

### The Management Team

The President	Mr David Carroll, USA
The Vice President	Mr Jae Ho Song, Republic of Korea
The Immediate Past President	Mr Jérôme Ferrier, France
The Secretary General	Mr Luis Bertrán Rafecas, Spain
The Chair of the Coordination Committee	Mr Mel Ydreos, USA
The Vice Chair of the Coordination Committee	Mr Munseok Baek

### IGU Council

Each member of the IGU is represented in the Council by one representative.

### Executive Committee 2015-2018 comprises:

- The Management Team members
- Representatives of the Charter members with responsibility for an IGU committee:

Exploration & Production	Malaysia	Mr Hazli Sham Kassim
Storage	Russia	Mr Andrey Sapozhnikov
Transmission	Czech Republic	Mr Andreas Rau
Distribution	Spain	Mr Antoni Peris Mingot
Utilization	Iran	Mr Hedayat Omidvar
Sustainability	Argentina	Mr Javier Gremes Cordero; RC Latin America and the Caribbean
Strategy	The Netherlands	Mr Han Fennema
Gas Markets	Algeria	Mr Fethi Arabi
LNG	Japan	Mr Shinichi Tada
Marketing	Australia	Mr Cheryl Cartwright
R&D and Innovation	Germany	Mr Gerald Linke

- Six representatives elected from the Charter members:

Brazil	Mr Augusto Salomon
China	Ms Li-Xin Che
Colombia	Mr Orlando Cabrales Segovia
Italy	Mr Andrea Stegher
Norway	Mr Runar Tjersland
Qatar	Mr Scott Ickes

- Five representatives elected from the Associate members:

IBP	Ms Cynthia Silveira
ENGIE	Mr Jean-Michel Figoli
KOGAS	Mr Seunghoon Lee
Pertamina	Ms Yenni Andayani
Shell	Mr Chris Gunner

- Regional Coordinators:

RC North America	Mr Tim Egan
RC Asia and Asia Pacific	Ms Li Yalan
RC Middle East and Africa	Mr Khaled Abubakr
RC Russia, Black Sea and The Caspian area	Mr Marcel Kramer
RC Europe	Mr Gertjan Lankhorst (until October 2016)

### **Coordination Committee**

Chair:	Mr Mel Ydreos
Secretary:	Ms Anette Sørum Nordal

Reporting to the CC are the eleven IGU Committees and two Task Forces, each with a number of study groups.

For further information, please refer to the 2015–2018 TWP on the IGU website.

Chair of the National Organising Committee for WGC 2018:

Mr Dave McCurdy

Please visit the website for WGC 2018 - [www.wgc2018.org](http://www.wgc2018.org)

### **Secretariat of the International Gas Union**

Secretary General	Mr Luis Bertrán Rafecas
Director	Mr Rafael Jesus Huarte Lazaro
Chief Advisor to the Secretary General	Ms Antonia Fernández Corrales
Senior Advisor to the Secretary General	Mr Taeksang Kwon
Information Consultant	Ms Anette Sørum Nordal
Executive Assistant	Ms Luisa Peris Melendez

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E-mail: [secretariat@igu-gasnatural.com](mailto:secretariat@igu-gasnatural.com)

Barcelona, 9 March 2016

Luis Bertrán Rafecas  
Secretary General of IGU



## Countries represented in the IGU as per 26 October 2017

1. Albania (ERE, Albanian Energy Regulator)
2. Algeria (Association Algérienne de l'Industrie du Gaz (AIG))
3. Argentina (Instituto Argentino del Petróleo & del Gas)
4. Armenia (Union of Gas Companies of Armenia- UGCA)
5. Australia (Australian Gas Industry Trust c/o Energy Networks Association)
6. Austria (Österreichische Vereinigung für das Gas- und Wasserfach (ÖVGW))
7. Azerbaijan (State Oil and Gas Company of Azerbaijan Republic – SOCAR)
8. Bahrain (The National Oil and Gas Authority- NOGA)
9. Belarus (Gazprom Transgaz Belarus)
10. Belgium (Association Royale des Gaziers Belges)
11. Bolivia (Yacimientos Petrolíferos Fiscales Bolivianos- YPFB)
12. Bosnia and Herzegovina (Gas Association of Bosnia and Herzegovina)
13. Brazil (Associação Brasileira das Empresas Distribuidoras de Gás Canalizado (ABEGAS))
14. Brunei Darussalam (Brunei Energy Association)
15. Bulgaria (Overgas Inc)
16. Cameroon (Société Nationale des Hydrocarbures)
17. Canada (Canadian Gas Association)
18. Chile (Natural Gas Distributors Association- AGN)
19. China, People's Rep. of (China Gas Society)
20. Colombia (Asociacion Colombiana de Gas Natural – Naturgas)
21. Croatia (Croatian Gas Association)
22. Cyprus (Ministry of Energy, Commerce, Industry and Tourism)
23. Czech Republic (Czech Gas Association)
24. Denmark (Dansk Gas Forening - Danish Gas Association)
25. Egypt (Egyptian Gas Association)
26. Equatorial Guinea (Sociedad Nacional de Gas G.E. (SONAGAS))
27. Estonia (Estonian Gas Association)
28. Finland (Finnish Gas Association)
29. France (Association Française du Gaz (AFG))
30. Germany (Deutsche Verein des Gas- und Wasserfaches e.V. (DVGW))
31. Greece (Public Gas Corporation of Greece S.A. (DEPA))
32. Hong Kong, China (The Hong Kong & China Gas Co. Ltd.)
33. Hungary (Hungarian Electricity Plc (MVM)- Hungarian Gas Trade)
34. India (Gas Authority of India Ltd. (GAIL))
35. Indonesia (Indonesian Gas Association (IGA))
36. Iran (National Iranian Gas Company (NIGC))
37. Iraq (State Oil Marketing Company/ Ministry of Oil – SOMO)
38. Ireland (Gas Networks Ireland)
39. Israel (The Israel Institute of Energy and Environment)
40. Italy (Comitato Italiano Gas (CIG))
41. Ivory Coast – Cote d'Ivoire (Société Nationale d'Opérations Pétrolière de la Cote d'Ivoire – PETROCI Holding)
42. Japan (The Japan Gas Association)
43. Kazakhstan (KazTransGas JSC)
44. Kuwait (Kuwait Petroleum Corporation- KPC)
45. Latvia (Latvijas Gaze)
46. Lebanon (Ministry of Energy and Water)
47. Libya (National Oil Corporation of Libya)
48. Lithuania (Nacionaline Lietuvos Energetikos asociacija, abbreviation (NLEA))
49. Macedonia (Macedonian Gas Association)
50. Malaysia (Malaysian Gas Association - c/o Petronas)
51. Mexico (Asociación Mexicana de Gas Natural, A.C.)
52. Monaco (Société Monégasque de l'Électricité et du Gaz (SMEG))

- |   |   |
|---|---|
| 53. Mongolia (Baganuur Joint Stock Company)   | 73. South Africa (South African Gas Development Company (Pty) Ltd.)               |
| 54. Morocco (Fédération de L'Énergie de la Confédération Générale des Entreprises du Maroc - CGEM)                      | 74. Spain (Spanish Gas Association - Asociación Española del Gas (SEDIGAS))       |
| 55. Mozambique (Empresa Nacional de Hidrocarbonetos, E.P. (ENH))  | 75. Sweden (Swedish Gas Association- Energigas Sverige)                           |
| 56. Netherlands, The (The Royal Dutch Gas Association – Koninklijke Vereniging van Gasfabrikanten in Nederland (KVGNI)) | 76. Switzerland (SWISSGAS)  |
| 57. Nigeria (Nigerian Gas Association c/o Nigerian Gas Company Ltd.)  | 77. Taiwan, China (The Gas Association of the Republic of China, Taipei)          |
| 58. Norway (Petoro AS)  | 78. Thailand (PTT Public Company Ltd. - Petroleum Authority of Thailand)          |
| 59. Oman (Oman LNG L.L.G.)  | 79. Timor-Leste (Timor Gas & Petroleum, E.P –Timor GaP)                           |
| 60. Pakistan (Petroleum Institute of Pakistan)  | 80. Trinidad and Tobago (The National Gas Company of Trinidad and Tobago Limited) |
| 61. Peru (Perúpetro S.A.)   | 81. Tunisia (Association Tunisienne du Pétrole & du Gaz (ATPG) c/o ETAP)          |
| 62. Poland (Polish Gas Association (PZITS))   | 82. Turkey (BOTAŞ)  |
| 63. Portugal (AGN – Associação das Empresas de Gás Natural)   | 83. Ukraine (Naftogaz of Ukraine)   |
| 64. Qatar (Qatar Liquefied Gas Company Ltd. (Qatargas))   | 84. United Arab Emirates (Abu Dhabi Liquefaction Company Ltd. (ADGAS))            |
| 65. Republic of Korea (The Korea Gas Union)   | 85. United Kingdom (The Institution of Gas Engineers and Managers)                |
| 66. Romania (S.N.G.N. Romgaz S.A.)  | 86. United States of America (American Gas Association)                           |
| 67. Russian Federation (Gazprom JSC)  | 87. Uzbekistan (Uzbekneftegaz (UNG))  |
| 68. Saudi Arabia (Saudi Aramco - Development Department)  | 88. Venezuela (Petróleos de Venezuela S.A. (PDVSA))                               |
| 69. Serbia (Gas Association of Serbia)  | 89. Vietnam (Vietnam Oil and Gas Group)   |
| 70. Singapore (SP PowerGrid Ltd.)   | 90. Yemen (Yemen LNG)   |
| 71. Slovak Republic (Slovak Gas and Oil Association)  |   |
| 72. Slovenia (GEOPLIN)  |   |

### **Premium Associate members as per 20 October 2016**

- |  |   |
|--|---|
| 1. Beijing Gas Group Co. Ltd (BGG) (P.R. of China)             | 6. Korea Gas Corporation (KOGAS) (Republic of Korea- South Korea) |
| 2. China National Petroleum Corporation – CNPC (P.R. of China) | 7. PT Pertamina (Persero) (Indonesia)                             |
| 3. Enagas (Spain)  | 8. Statoil (Norway)   |
| 4. ENGIE (France)  | 9. TOTAL S.A. (France)  |
| 5. IGDAŞ - Istanbul Gas Distribution Co. (Turkey)              | 10. UNIPER (formerly E.ON Global Commodities) (Germany)           |

## Associate members as per 20 October 2016

1. Abu Dhabi National Oil Company (ADNOC) Distribution (United Arab Emirates)
2. Anadarko Petroleum Corporation (APC) (USA)
3. Australian Petroleum Production & Exploration Association (APPEA) (Australia)
4. Berkeley Research Group (USA)
5. BP Gas Marketing Ltd (United Kingdom)
6. Bureau Veritas (France)
7. Bursagaz (Turkey)
8. Cheniere Energy, Inc. (USA)
9. Chevron Global Gas (USA)
10. China LNG Association (P.R. of China)
11. China Petrochemical Corporation (Sinopec) (P.R. of China)
12. COM-therm (Slovakia)
13. ConocoPhillips Company (USA)
14. Det Norske Veritas Germanischer Lloyd (DNV GL)
15. Edison (Italy)
16. Energiagnostika (Russia)
17. ENI (Italy)
18. Eurogas
19. ExxonMobil Gas & Power Marketing (USA)
20. GasTerra (The Netherlands)
21. GAZBIR- Association of Natural Gas Distribution Companies of Turkey (Turkey)
22. Indian Oil Corporation Limited (India)
23. Indonesian Gas Society (IGS) (Indonesia)
24. INPEX Corporation (Japan)
25. Instituto Brasileiro de Petróleo, Gás e Biocombustíveis (Brazil)
26. Liander N.V. (The Netherlands)
27. Linde AG (Germany)
28. Mongolian Energy Economic Institute (Mongolia)
29. Natural Gas Society (NGS) (India)
30. NV Nederlandse Gasunie (The Netherlands)
31. OMV Gas & Power (Austria)
32. Origin Energy Limited (Australia)
33. Petróleo Brasileiro S.A. - Petrobras (Brazil)
34. Petronet LNG (India)
35. PwC (The Netherlands)
36. RasGas Company Limited (Qatar)
37. Regas (Italy)
38. Repsol (Spain)
39. Russian Gas Society (Russia)
40. Samsung Engineering (Republic of Korea-South Korea)
41. Santos Ltd (Australia)
42. Shell International Explorations & Production BV (United Kingdom)
43. Sonorgás (Portugal)
44. Spetsneftegaz NPO JSC (Spetsneftegaz) (Russia)
45. Swiss Gas and Water Industry Association (SVGW) (Switzerland)
46. TAQA, Arab Company for Energy (Egypt)
47. TBG - Transportadora Brasileira Gasoduto Bolivia-Brasil S/A (Brazil)
48. Transportadora de Gas del Peru (Peru)
49. Vopak LNG Holding BV (Vopak LNG) (The Netherlands)
50. Westnetz GmbH (Germany)
51. WINGAS (Germany)
52. Woodside Energy Ltd. (Australia)