















ANGVA Biennial Report 2012-2013

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1.0 OVERVIEW

The Asia Pacific Natural Gas Vehicles Association (ANGVA) was established in 2002 in South Korea with its Secretariat located in the city of Chuncheon in Gangwon Province and inaugurated as an international organisation dedicated to the development and promotion of natural gas as an environmentally and sustainable fuel for the transport sector. ANGVA is an international trade association serving the needs of fleet operators, vehicle manufacturers, OEMs, gas suppliers, equipment suppliers, refuelling equipment providers, consultants, government representatives, NGOs and others involved with the natural gas vehicle industry.

ANGVA provides NGV related information to members and helps members to communicate and share their experiences for improving the NGV industry in their countries. ANGVA is dedicated to developing an industry with highest technical and safety standards covering the entire Asia Pacific region. ANGVA also involves the leadership of the NGV community to influence activities and policies that provide increased market opportunities.

The activities of the Association are governed by the Board and its committees and implemented by the Secretariat. The first board election was held in Oct 2003 in Manila, Philippines. In 2006, the Board made a decision to move the ANGVA Secretariat to Malaysia with support of PETRONAS. On 28th May 2007, ANGVA was registered as an association in Malaysia and subsequently the ANGVA Secretariat was established in Malaysia where it is currently based.

In 2013, ANGVA adopts a new vision statement of "To lead and promote Asia Pacific NGV Industry towards sustainable growth". This vision will be achieved by ANGVA planting the seeds, providing the catalysts, monitoring and steering the development of a safe, profitable and sustainable market for natural gas as an environmentally friendly, economically viable, and energy security transport fuel, throughout the Asia Pacific region.

ANGVA VISION

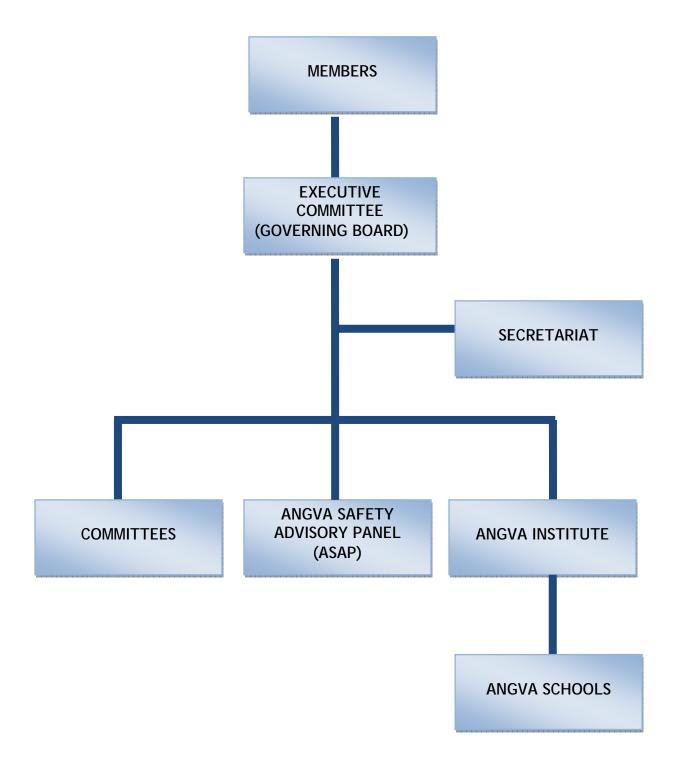
To lead and promote Asia Pacific NGV industry towards sustainable growth.

OBJECTIVES

The objectives of the association are:

- > To provide a forum in which members can discuss matters relating to natural gas as a fuel for vehicles.
- > To promote the development of sustainable and profitable market for natural gas vehicles.
- > To encourage the development of natural gas vehicles technology and refuelling infrastructure.
- > To advance knowledge and learning, and stimulate research in the areas of natural gas as fuel for vehicles.
- > To collect, analyse and disseminate information related to the use of natural gas as a fuel for vehicles.
- > To promote standard of safety and uniformity of practices and standards relating to the use of natural gas as a fuel for vehicles.
- > To organise conferences, exhibitions, seminars and trainings on the use of natural gas as a fuel for vehicles.

2.0 ANGVA ORGANISATION CHART



2.1 EXECUTIVE COMMITTEE / GOVERNING BOARD MEMBERS (2012-2013)



President

Name : Mr. Hesham Ali Mustafa Company : Emirates Gas LLC, UAE Position : Senior Director, ENOC Gas

Marketing



Senior Vice President Name: Mr Jin Gang

Company : Shanghai Diesel Engine Co., Ltd,

China

Position : Vice President



Vice President

Name : Mr. Fazal Ali Khan
Company : Emirates Gas LLC, UAE
Position : CNG Development Manager



Vice President

Name : Ms. Brenda Smith

Company : Gas Advisers, Hong Kong

Position : Managing Director



Vice President

Name : Mr. Danny Praditya

Company : PT Citra Nusantara Gemilang,

Indonesia

Position : Managing Director



Immediate Past President

Name : Mr. Wichai Pornkeratiwat Company : PTT Public Company Limited,

Thailand

Position : Chief Ope

: Chief Operating Officer, Upstream Petroleum and Gas

Business Group



Treasurer

Name : Mr. M Haikal Zubir

Company: PETRONAS Dagangan Berhad,

Malaysia

Position: Manager, Operations &

Technical Services, NGV Dept.



Vice President

Name : Mr. Punnachai Footrakul

Company : PPT Public Company Limited,

Thailand

Position : Vice President



Vice President

Name : Mr. William Aw

Company: Bukit Sedap Pte Ltd, Singapore

Position : Managing Director



Vice President

Name: Mr. Hasin Parvez

Company: Green Fuel CNG Conversion

Center, Bangladesh

Position : Chief Executive Officer



Secretary

Name : Mr. Lee Giok Seng

Company : PETRONAS Gas & Power Division,

Malaysia

Position : Senior Manager

2.2 COUNTRY REPRESENTATIVES (2012-2013)

Pakistan



Name: Mr. Muazzam Hussain Ch.

Company: Oil And Gas Regulatory Authority

Position : Executive Director

Korea



Name : Mr. Kevin Park
Company : NGVI Inc
Position : President
(Resigned as ANGVA country
representative on May 2013)



Name : Mr Kim, Young Don Company : Korea Association for

Natural Vehicles (KANGV)

Position : Vice Chairman

(Appointed to replace Mr. Kevin Park

in May 2013)

2.3 ANGVA SECRETARIAT



Name : Mr. Lee Giok Seng Position : Executive Director



Name : Ms. Aznita Saidin

Position : Administrative Executive

3.0 ANGVA MEMBERS

As of 31st August 2013, there were 79 ANGVA members comprising of 20 Class A, 1 Class C, 41 Class C and 17 Class D members. These members were from 21 countries i.e. Bangladesh, Canada, China, Germany, Hong Kong, Iran, Indonesia, Italy, Japan, Kazakhstan, Malaysia, Myanmar, New Zealand, Pakistan, Singapore, South Korea, Thailand, Turkey, UAE, Uzbekistan, and USA.

Class A Members

| No | Logo | Company | Country | Products & Services |
|----|---|---------------------------------------|-------------|--|
| 1 | Atlas Copco | Atlas Copco | China | Manufacturer / Supplier : Refuelling Station Equipment Compressor & Dispenser |
| 2 | EMERSON. | Emerson Process Management Co. | China | Automation Systems & Instrumentation Provider |
| 3 | غاز الإمارات فاز الإمارات EMIRATES GAS | Emirates Gas LLC | UAE | CNG Distribution & Supply |
| 4 | MW | IMW Industries Ltd. | Canada | Manufacturer / Supplier : Refuelling Station Equipment Compressor & Dispenser Valve, Fitting & Other Component Consultant / R&D / Training / Testing |
| 5 | () KOGRS | KOGAS | South Korea | Gas Supplier Refuelling Station Operator |
| 6 | KwangShin | Kwangshin Machine Industry Co.,Ltd | South Korea | CNG Compressor & Dispenser Manufacturer |
| 7 | LINCOLN COMPOSITES A Member of Hexagon Composites Group | Lincoln Composite | USA | Manufacturer Type IV CNG |
| 8 | ENK | ENK Co., Ltd | South Korea | Manufacturer / Supplier : Refuelling Station Operator & Component Refuelling Station Equipment Vehicle Conversion Kits CNG Cylinder Valve, Fitting & Other Component |
| 9 | | PETRONAS | Malaysia | Gas Supplier Refuelling Station Operator |

| 10 | PERTAMINA | PT Pertamina | Indonesia | Gas Supplier Refuelling Station Operator |
|----|--------------------------------------|--|-----------|--|
| 11 | b ptt | PTT Public Company Limited | Thailand | Gas Supplier Refuelling Station Operator |
| 12 | Safe s.r.l. GAS TECHNOLOGY | Safe s.r.l. Gas Technology | Italy | Manufacturer / Supplier : Refuelling Station Equipment CNG Cylinder Consultant / R&D / Training / Testing |
| 13 | SDEC | Shanghai Diesel Engine Co., Ltd | China | Manufacturer / Supplier : Vehicle / Engine |
| 14 | Sime Darby Industrial | Sime Darby Industrial Sdn. Bhd | Malaysia | Gas Supplier Manufacturer / Supplier: Refuelling Station Operator & Component Refuelling Station Equipment Compressor & Dispenser Vehicle Conversion Workshop Vehicle Conversion Kits Consultant / R&D / Training / Testing Others |
| 15 | Sinoma 中材科技 | Sinoma Science & Technology (Su Zhou) Co.,Ltd. | China | CNG Cylinder Manufacturer / Supplier |
| 16 | Swagelok Value beyond the expected** | Swagelok Company | Malaysia | Manufacturer / Supplier : Valve, Fitting & Other Component Consultant / R&D / Training / Testing Refuelling Station Equipment Compressor & Dispenser |
| 17 | Tamkar Gas | Tamkar Gas Equipment Co. | Iran | Oil, Gas & Energy Manufacturer/ Supplier: Refuelling Station Equipment Compressor & Dispenser & Drier Consultant / R&D / Training |
| 18 | UMW | UMW Industrial Power Sdn Bhd | Malaysia | Manufacturer / Supplier Refuelling Station Equipment Compressor & Dispenser CNG Cylinder Valve, Fitting & Other Component Consultant / R&D / Training / Testing Others |
| 19 | VITKOVICE VITKOVICE CYLINDERS | Vitkovice Machinery Group | UAE | Cylinders Manufacturer CNG Station Trailers |

| 20 | xperion | Xperion | Germany | Cylinder & Equipment Manufacturer |
|----|---------|---------|---------|--------------------------------------|
|----|---------|---------|---------|--------------------------------------|

Class B Members

| No | Company | Country | Products & Services |
|----|-----------------------|---------|---|
| 1 | Cummins Westport Inc. | China | Vehicle / Engine Manufacturer / Supplier |

Class C Members

| 1ABA Gas Technologies Sdn BhdMalaysiaNGV Related Industries2Aldesa Autogas EquipmentsTurkeyConversion Kit Equipment Supplier3All Events Group Pte LtdSingaporeEvent Management4ANGI Energy SystemsUSAManufacturer / Supplier : Refuelling Station Equipment Compressor & Dispenser5Arya-SGS Quality Services Co.IranInspection Company6Asian NGV Communications - NGV Communications GroupSouth KoreaPublication & Event Management7Bangkok Exhibition Services LtdThailandEvent Management8Bauer Kompressoren Shanghai LtdChinaHigh Pressure Gas Compressors9Beijing Landi Renzo Autogas Systems Co. LtdChinaConversion Kit Manufacturer10Beijing Qifa Exhibition Service Co. LtdChinaEvent Management11Bireme Group Pte. LtdSingaporeNatural Gas Dryer & Biogas / Natural Gas Upgrading12Bukit Sedap Pte LtdSingaporeManufacturer / Supplier Compressor & Dispenser Vehicle Conversion Workshop Vehicle Conversion Workshop Vehicle Conversion Workshop Vehicle Conversion Kits Consultant / R&D / Training / Testing13C. Melchers GmbH & CoNew ZealandCNG Compressor / Dispenser Manufacturer14Compressed Gas TechnologyUAECNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier15Compressed Gas TechnologyUAECNG Cylinder Manufacturer16Dynetek Industries LtdCanadaCNG Cylinder Manufacturer17Gas AdvisersHong Kong <th>No</th> <th>Company</th> <th>Country</th> <th>Products & Services</th> | No | Company | Country | Products & Services |
|--|----|----------------------------------|-------------|--|
| 3 All Events Group Pte Ltd 4 ANGI Energy Systems 5 Arya-SGS Quality Services Co. 6 Asian NGV Communications - NGV Communications Group 7 Bangkok Exhibition Services Ltd 8 Bauer Kompressoren Shanghai Ltd 9 Beijing Landi Renzo Autogas Systems Co. Ltd 10 Beijing Olfa Exhibition Service Co. Ltd 11 Bireme Group Pte. Ltd 12 Bukit Sedap Pte Ltd 13 C. Melchers GmbH & Co 14 Compac Industries Ltd 15 Compressed Gas Technology 16 Dynetek Industries Ltd 17 Gas Advisers 18 ANGI Energy Systems USA Manufacturer / Supplier: Refuelling Station Equipment Compressor & Dispenser Natural Gas Compressors Litan Manufacturer / Supplier Compressor & Dispenser Vehicle Conversion Kits Consultant / R&D / Training / Testing CNG Compressor / Dispenser Manufacturer CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier | 1 | ABA Gas Technologies Sdn Bhd | Malaysia | NGV Related Industries |
| 4 ANGI Energy Systems 4 ANGI Energy Systems 5 Arya-SGS Quality Services Co. Iran Inspection Company 6 Asian NGV Communications - NGV Communications Group 7 Bangkok Exhibition Services Ltd Thailand Event Management 8 Bauer Kompressoren Shanghai Ltd China High Pressure Gas Compressors 9 Beijing Landi Renzo Autogas Systems Co. Ltd 10 Beijing Qifa Exhibition Service Co. Ltd 11 Bireme Group Pte. Ltd Singapore Natural Gas Dryer & Biogas / Natural Gas Upgrading 12 Bukit Sedap Pte Ltd Singapore Natural Gas Investment Company 13 C. Melchers GmbH & Co Singapore Vehicle Conversion Kits Consultant / R&D / Training / Testing 14 Compac Industries Ltd New Zealand Conditions (Conversion Kits Supplier Compressed Gas Technology) 15 Compressed Gas Technology UAE Refuelling Station & Conversion Kits Supplier 16 Dynetek Industries Ltd Canada CNG Cylinder Manufacturer 17 Gas Advisers Hong Kong Consultant | 2 | Aldesa Autogas Equipments | Turkey | Conversion Kit Equipment Supplier |
| 4 ANGI Energy Systems 5 Arya-SGS Quality Services Co. Iran Inspection Company 6 Asian NGV Communications - NGV Communications Group 7 Bangkok Exhibition Services Ltd Thailand Event Management 8 Bauer Kompressoren Shanghai Ltd China High Pressure Gas Compressors 9 Beijing Landi Renzo Autogas Systems Co. Ltd Beijing Qifa Exhibition Service Co. Ltd Singapore 10 Beijing Qifa Exhibition Service Co. Ltd Singapore Natural Gas Dryer & Biogas / Natural Gas Upgrading 11 Bireme Group Pte. Ltd Singapore Natural Gas Investment Company 12 Bukit Sedap Pte Ltd Singapore Natural Gas Investment Company 13 C. Melchers GmbH & Co Singapore Vehicle Conversion Workshop Vehicle Conversion Wits Consultant / R&D / Training / Testing 14 Compac Industries Ltd New Zealand CNG Cylinder Manufacturer 15 Compressed Gas Technology UAE Conversion Kit Supplier 16 Dynetek Industries Ltd Canada CNG Cylinder Manufacturer 17 Gas Advisers Hong Kong Consultant | 3 | All Events Group Pte Ltd | Singapore | Event Management |
| 6 Asian NGV Communications - NGV Communications - NGV Communications Group 7 Bangkok Exhibition Services Ltd Thailand Event Management 8 Bauer Kompressoren Shanghai Ltd China High Pressure Gas Compressors 9 Beijing Landi Renzo Autogas Systems Co. Ltd 10 Beijing Qifa Exhibition Service Co. Ltd 11 Bireme Group Pte. Ltd Singapore Natural Gas Dryer & Biogas / Natural Gas Upgrading 12 Bukit Sedap Pte Ltd Singapore Natural Gas Investment Company 13 C. Melchers GmbH & Co Singapore Vehicle Conversion Kits Consultant / R&D / Training / Testing 14 Compac Industries Ltd New Zealand CNG Cylinder Manufacturer 15 Compressed Gas Technology UAE Canada CNG Cylinder Manufacturer 16 Dynetek Industries Ltd Canada CNG Cylinder Manufacturer 17 Gas Advisers Hong Kong Consultant | 4 | ANGI Energy Systems | USA | Refuelling Station Equipment Compressor & Dispenser |
| South Korea | 5 | Arya-SGS Quality Services Co. | Iran | Inspection Company |
| 8 Bauer Kompressoren Shanghai Ltd China High Pressure Gas Compressors 9 Beijing Landi Renzo Autogas Systems Co. Ltd China Conversion Kit Manufacturer 10 Beijing Qifa Exhibition Service Co. Ltd Singapore Natural Gas Dryer & Biogas / Natural Gas Upgrading 11 Bireme Group Pte. Ltd Singapore Natural Gas Investment Company 12 Bukit Sedap Pte Ltd Singapore Natural Gas Investment Company 13 C. Melchers GmbH & Co Singapore Vehicle Conversion Workshop Vehicle Conversion Workshop Vehicle Conversion Kits Consultant / R&D / Training / Testing 14 Compac Industries Ltd New Zealand CNG Cylinder Manufacturer 15 Compressed Gas Technology UAE Refuelling Station & Conversion Kit Supplier 16 Dynetek Industries Ltd Canada CNG Cylinder Manufacturer 17 Gas Advisers Hong Kong Consultant | 6 | | South Korea | · · |
| 9 Selding Landi Renzo Autogas Systems Co. Ltd China Conversion Kit Manufacturer Systems Co. Ltd Event Management Ltd Singapore Natural Gas Dryer & Biogas / Natural Gas Upgrading Natural Gas Upgrading Natural Gas Investment Company Manufacturer / Supplier Compressor & Dispenser Vehicle Conversion Workshop Vehicle Conversion Workshop Vehicle Conversion Kits Consultant / R&D / Training / Testing Compressed Gas Technology WAE Compac Industries Ltd New Zealand Compac Industries Ltd Dynetek Industries Ltd Conversion Kit Manufacturer Event Management Natural Gas Dryer & Biogas / Natural Gas Investment Company Manufacturer / Supplier Compressor & Dispenser Vehicle Conversion Kits Consultant / R&D / Training / Testing CNG Compressor / Dispenser Manufacturer CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier Cong Cylinder Manufacturer CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier Cong Cylinder Manufacturer CNG Cylinder Manufacturer | 7 | Bangkok Exhibition Services Ltd | Thailand | Ĭ |
| Systems Co. Ltd Beijing Qifa Exhibition Service Co. Ltd Bireme Group Pte. Ltd Singapore Bukit Sedap Pte Ltd Singapore Singapore Singapore Matural Gas Dryer & Biogas / Natural Gas Upgrading Natural Gas Investment Company Manufacturer / Supplier Compressor & Dispenser Vehicle Conversion Workshop Vehicle Conversion Kits Consultant / R&D / Training / Testing Compac Industries Ltd New Zealand Compressed Gas Technology WAE Compressed Gas Technology UAE Consultant / R&D / Training Station & Conversion Kit Supplier CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer | 8 | Bauer Kompressoren Shanghai Ltd | China | High Pressure Gas Compressors |
| 11 Bireme Group Pte. Ltd Singapore Natural Gas Dryer & Biogas / Natural Gas Upgrading Natural Gas Upgrading Natural Gas Investment Company Manufacturer / Supplier Compressor & Dispenser Vehicle Conversion Workshop Vehicle Conversion Kits Consultant / R&D / Training / Testing Compressed Gas Technology New Zealand Compressed Gas Technology Description: Compressed Gas Technology Compressed Gas Technology Description: Compressed Gas Technology Description: Compressed Gas Technology Compressed Gas Technology Description: Compressed Gas Technology Compressed Gas Tech | 9 | | China | Conversion Kit Manufacturer |
| Bilefile Group Pte. Eta Singapore Natural Gas Upgrading | 10 | | China | |
| Singapore Manufacturer / Supplier Compressor & Dispenser Vehicle Conversion Workshop Vehicle Conversion Kits Consultant / R&D / Training / Testing | 11 | Bireme Group Pte. Ltd | Singapore | Natural Gas Upgrading |
| Compressor & Dispenser Vehicle Conversion Workshop Vehicle Conversion Kits Consultant / R&D / Training / Testing CNG Compressor / Dispenser Manufacturer Compac Industries Ltd New Zealand CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier Compressed Gas Technology UAE Compressed Gas Technology CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer Compressed Gas Technology Consultant Consultant | 12 | Bukit Sedap Pte Ltd | Singapore | Natural Gas Investment Company |
| 14 Compac Industries Ltd New Zealand New Zealand Manufacturer CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier 16 Dynetek Industries Ltd Canada CNG Cylinder Manufacturer Refuelling Station & Conversion Kit Supplier CNG Cylinder Manufacturer Hong Kong Consultant | 13 | C. Melchers GmbH & Co | Singapore | Compressor & Dispenser Vehicle Conversion Workshop Vehicle Conversion Kits Consultant / R&D / Training / |
| 15 Compressed Gas Technology UAE Refuelling Station & Conversion Kit Supplier 16 Dynetek Industries Ltd Canada CNG Cylinder Manufacturer 17 Gas Advisers Hong Kong Consultant | 14 | Compac Industries Ltd | New Zealand | |
| 17 Gas Advisers Hong Kong Consultant | 15 | | UAE | Refuelling Station & Conversion Kit Supplier |
| | 16 | Dynetek Industries Ltd | Canada | CNG Cylinder Manufacturer |
| 18 Green Fuel CNG Conversion Center Bangladesh Refuelling & Conversion Workshop | 17 | Gas Advisers | Hong Kong | Consultant |
| | 18 | Green Fuel CNG Conversion Center | Bangladesh | Refuelling & Conversion Workshop |

| 19 Hamayesh Sanat Institute Iran Publication & Event Management | | | | Operator |
|---|----|---------------------------------|-------------|---|
| InnoTrend Resources (M) Sdn Bhd | 19 | Hamayesh Sanat Institute | Iran | Publication & Event Management |
| InnoTrend Resources (M) Sdn Bhd Malaysia Vehicle Conversion Workshop Vehicle Conversion Workshop Vehicle Conversion Kits CNG Cylinder Conversion Workshop | 20 | IEV Energy Sdn Bhd | Malaysia | |
| Z2 | 21 | InnoTrend Resources (M) Sdn Bhd | Malaysia | Vehicle Conversion Workshop Vehicle Conversion Kits |
| Kuala Lumpur Valve & Fitting (M) Malaysia Valve & Fitting Supplier | 22 | JT NGV Holdings Sdn Bhd | Malaysia | |
| Sdn Bhd M.N.T Co.,Ltd Myanmar Manufacturer / supplier: Refuelling Station Equipment Compressor & Dispenser Vehicle Conversion Kits Vehicle / Engine Metatron Control Systems (Shanghai) Co., Ltd. Mirpur Ceramic Works CNG RS & CW Refuelling Station Operator Mirpur Ceramic Works CNG RS & CW South Korea Manufacturer / Supplier Construction & Mining Oilfield Services Compressor CNG Mother Station NGV Vehicles & Equipment Business Retrofitting and Installation of NGV kits Manufacturer / Supplier: Refuelling Station Equipment Manufacturer / Supplier China Refuelling Station Equipment Manufacturer / Supplier China Conversion Workshop Operator CNG Oylinder Conversion Workshop Operator Teesing Industrial Systems(Beijing)Co., Ltd Tael Infinity Engineering Sdn Bhd Malaysia CNG / NGV equipment provider Trader / Installer | 23 | KazTransGas Onimderi | Kazakhstan | Equipment Supplier |
| M.N.T Co.,Ltd Myanmar Refuelling Station Equipment Compressor & Dispenser Vehicle Conversion Kits Vehicle / Engine | 24 | | Malaysia | Valve & Fitting Supplier |
| Metatron Control Systems (Shanghai) Co., Ltd. China (Shanghai) Co., Ltd. | 25 | M.N.T Co.,Ltd | Myanmar | Refuelling Station Equipment Compressor & Dispenser Vehicle Conversion Kits |
| Mirpur Ceramic Works CNG RS & CW Bangladesh Refuelling Station Operator | 26 | | China | Valve, Fitting & Other Component |
| Manufacturer / Supplier : Valve, Fitting & Other Component Consultant / R&D / Training / Testing | 27 | Mirpur Ceramic Works CNG RS & | Bangladesh | |
| OMB Saleri Spa | 28 | NGVI | South Korea | Vehicle Conversion Kit Supplier |
| PT Citra Nusalitara Gerillarig Indonesia Conversion Workshop Operator | 29 | OMB Saleri Spa | Italy | Valve, Fitting & Other Component Consultant / R&D / Training / |
| 31PT Fajar Mas MurniIndonesiaOilfield Services Compressor32PT T EnergyIndonesiaCNG Mother Station33Sammitr Green Power Co., LtdThailandNGV Vehicles & Equipment Business Retrofitting and Installation of NGV kits34Shijiazhuang Enric Gas Equipment Co., LtdManufacturer / Supplier :35Skill Trade Development Sdn BhdMalaysiaConversion Workshop Operator36Teesing Industrial Systems(Beijing)Co., LtdChinaEquipment Supplier37Tech Infinity Engineering Sdn BhdMalaysiaCNG / NGV equipment provider38Tiger Automotive Co. LtdThailandTrader / Installer | 30 | PT Citra Nusantara Gemilang | Indonesia | |
| Sammitr Green Power Co., Ltd Thailand NGV Vehicles & Equipment Business Retrofitting and Installation of NGV kits Manufacturer / Supplier: Refuelling Station Equipment Manufacturer Compressor & Dispenser CNG Cylinder Skill Trade Development Sdn Bhd Teesing Industrial Systems(Beijing)Co., Ltd Thailand Tech Infinity Engineering Sdn Bhd Malaysia Tiger Automotive Co. Ltd NGV Vehicles & Equipment Business Retrofitting and Installation of NGV kits Manufacturer / Supplier: China Refuelling Station Equipment Manufacturer Compressor & Dispenser CNG Cylinder Equipment Supplier Systems(Beijing)Co., Ltd Thailand Trader / Installer | 31 | PT Fajar Mas Murni | Indonesia | Oilfield Services |
| Sammitr Green Power Co., Ltd Thailand Retrofitting and Installation of NGV kits Manufacturer / Supplier: Refuelling Station Equipment Manufacturer Compressor & Dispenser CNG Cylinder Skill Trade Development Sdn Bhd Teesing Industrial Systems(Beijing)Co., Ltd Tech Infinity Engineering Sdn Bhd Tiger Automotive Co. Ltd Thailand Retrofitting and Installation of NGV kits Manufacturer / Supplier: CNG Cylinder Conversion Workshop Operator Equipment Supplier CNG / NGV equipment provider Trader / Installer | 32 | PT T Energy | Indonesia | CNG Mother Station |
| Shijiazhuang Enric Gas Equipment Co., Ltd China Refuelling Station Equipment Manufacturer Compressor & Dispenser CNG Cylinder CNG Cylinder Conversion Workshop Operator Teesing Industrial Systems(Beijing)Co., Ltd Tech Infinity Engineering Sdn Bhd Tiger Automotive Co. Ltd Refuelling Station Equipment Manufacturer Compressor & Dispenser CNG Cylinder Conversion Workshop Operator Equipment Supplier CNG / NGV equipment provider Trader / Installer | 33 | Sammitr Green Power Co., Ltd | Thailand | Retrofitting and Installation of NGV |
| 36 Teesing Industrial Systems(Beijing)Co., Ltd 37 Tech Infinity Engineering Sdn Bhd Malaysia CNG / NGV equipment provider 38 Tiger Automotive Co. Ltd Thailand Trader / Installer | 34 | | China | Manufacturer / Supplier : Refuelling Station Equipment Manufacturer Compressor & Dispenser |
| Systems(Beijing)Co., Ltd 37 Tech Infinity Engineering Sdn Bhd Malaysia CNG / NGV equipment provider 38 Tiger Automotive Co. Ltd Thailand Trader / Installer | 35 | Skill Trade Development Sdn Bhd | Malaysia | Conversion Workshop Operator |
| 38 Tiger Automotive Co. Ltd Thailand Trader / Installer | 36 | Systems(Beijing)Co., Ltd | | |
| | 37 | , | | |
| 39 TN Engineering Sdn Bhd Malaysia Vehicle & Engine Converter | 38 | Tiger Automotive Co. Ltd | Thailand | Trader / Installer |
| | 39 | TN Engineering Sdn Bhd | Malaysia | Vehicle & Engine Converter |

| 40 | Truckquip Sdn Bhd | Malaysia | Automotive Manufacturer | |
|----|-----------------------|-------------|----------------------------------|--|
| 41 | Youngdo Ind. Co., Ltd | South Korea | Valve, Fitting & Other Component | |
| | | | Manufacturer / Supplier | |

Class D Members

| No | Company | Country | Products & Services |
|----|--|-------------|--|
| 1 | Asosiasi Pengusaha CNG Indonesia (APCNGI) | Indonesia | NGV Association |
| 2 | Association Enterprises of Alternative Fuels & Energy | Uzbekistan | NGV Association |
| 3 | China Automotive Technology & Research Center (CATARC) | China | Consultant / R&D / Training / Testing |
| 4 | Directorate General of Oil & Gas | Indonesia | Government |
| 5 | Donghae City | South Korea | Government |
| 6 | Gangwon Provincial Government | South Korea | Government |
| 7 | Jason Noah Neo* | Singapore | Individual |
| 8 | Korean Association NGV | South Korea | NGV Association |
| 9 | MANGVI | Malaysia | NGV Association |
| 10 | Muazzam Hussain Ch* | Pakistan | Individual |
| 11 | NGV Italia | Italy | NGV Association |
| 12 | Pervaiz Khattak* | Pakistan | Individual |
| 13 | Sharjah Transport | Pakistan | Fleet Operator Government |
| 14 | Thailand NGV Association (TANGV) | Thailand | Association |
| 15 | The Japan Gas Association | Japan | Association |
| 16 | Universiti PUTRA Malaysia | Malaysia | Government / University / Association Consultant / R&D / Training / Testing Others - Post Graduate Studies (Master & Ph.D) |
| 17 | Universiti Tun Hussein Onn | Malaysia | Government / University / Association Consultant / R&D / Training / Testing Others - Post Graduate Studies (Master & Ph.D) |

*Individual Member

4.0 EXECUTIVE DIRECTOR'S REPORT

4.1 ANGVA Board Meetings

- 4.1.1 22nd ANGVA Board Meeting, 29th March 2012, Bangkok, Thailand.
 4.1.2 23rd ANGVA Board Meeting, 13th November 2012, Bangkok, Thailand.
- 4.1.3 24th ANGVA Board Meeting, 13th May 2013, Dubai, UAE

4.2 ANGVA Members Meetings

- 4.2.1 2nd ANGVA Safety Advisory Panel (ASAP) Meeting, 29th March 2012, Bangkok, Thailand.
- 4.2.2 ANGVA Strategic Planning Meeting, 12-13th November 2012, Bangkok, Thailand.

4.3 ANGVA Workshops and Organised/Co-organised Events

- 4.3.1 ANGVA Training Session on "Introduction to NGV-CNG Vehicles Inspection" for PUSPAKOM, 18th April 2012, Shah Alam, Malaysia.
- 4.3.2 ANGVA Half Day Seminar on "Ensuring NGV Safety in Malaysia Through Meeting The Requirements of MS1096:2011", 23rd May 2012, Puchong, Malaysia.
- CNG-NGV ANGVA Forum 2013, 14 16th May 2013, Dubai, UAE.

4.4 Endorsed Events

- 4.4.1 CNG Infrastructure, Equipment Selection and NGV Conversion Seminar, 12-13th April 2012, Jakarta, Indonesia.
- 4.4.2 CNG-NGV Central Asia Forum, 14-16th June 2012, Tashkent, Uzbekistan.
- 4.4.3 CNG-Vietnam Forum 2012, 1-3rd Aug 2012, Ho Chi Minh City, Vietnam.
- 4.4.4 China NG 2012 4th China International Exhibition on NGV, 12-14th Sept 2012, Nanjing, China.
- 4.4.5 7th Natural Gas Vehicles & Infrastructure Indonesia Forum and Exhibition 2013, 31st 1st Feb 2013, Jakarta, Indonesia.
- 4.4.6 NGV China 2013, 14th China International NGV Station Equipment Expo, 8th 10th May 2013.
- Natural Gas Vehicles (NGV) Philippines Roundtable Forum 2013, 8th Oct 2013, Manila, 4.4.7 Philippines.

4.5 Participated Events

- 4.5.1 World Gas Conference 2012, 4-8th June 2012, Kuala Lumpur, Malaysia.
- 4.5.2 NGVA Europe Bologna 2012, 19-21st June 2012, Bologna, Italy.
- 4.5.3 Biogas Asia Pacific Forum 2012, 18-20th July 2012, Bangkok, Thailand. 4.5.4 4th National Energy Forum, 27th Sept 2012, Kuala Lumpur, Malaysia.
- PETRONAS NGV Safety Awareness Campaign, 28th Sept 2012, Melaka, Malaysia. 4.5.5
- 4.5.6 International Energy Agency Advanced Motor Fuels (IEA AMF) 44th Executive Committee Meeting, 23-26th Oct 2012, Beijing, China.
- LNG Malaysia Forum 2013, 19th 21st Mar 2013, Kuala Lumpur, Malaysia.
- 4.5.8 Seventh Regional Environmentally Sustainable Transport Forum (7EST), 23rd 25th April 2013, Bali, Indonesia.
- 4.5.9 Training of Trainer Programme, 3rd June 2013, Kuala Lumpur, Malaysia. 4.5.10 NGV Safety Awareness Campaign, 11th June 2013, Kuala Lumpur, Malaysia.
- 4.5.11 Biogas Asia Pacific Forum, 2013, 12 14th June 2013, Kuala Lumpur, Malaysia.
- 4.5.12 1st NGV Safety Workshop of The Malaysian NGV Installer Association (MANGVI), 3rd July 2013, Kuala Lumpur, Malaysia.

4.6 ANGVA 2013

4.7 Income and Expenditure

4.6.1 Audited Income & Expenditure Statement Year 2011, 2012 & Unaudited 2013.

4.1 ANGVA Board Meetings

4.1.1 22nd ANGVA Board Meeting, 29th March 2012, Bangkok, Thailand.

The 22nd ANGVA Board Meeting was held from 9.05 am till 1.00 p.m. It was chaired by the new President of ANGVA, Mr. Hesham Ali Mustaffa of Emirates Gas, UAE. Mr. Hesham Ali Mustafa was duly elected President of ANGVA for the term of 2012 - 2013 at the ANGVA Biennial General Meeting on 19th Oct 2011 in Beijing, China during ANGVA 2011 Conference & Exhibition.

The 22nd ANGVA Board meeting was the first board meeting chaired by Mr. Hesham Ali Mustafa. It was attended by 5 board members and 12 observers (11 ANGVA members and 1 invited quest).



4.1.2 23rd ANGVA Board Meeting, 13th November 2012, Bangkok, Thailand.



The 23rd ANGVA Board Meeting was held from 2.35pm, till 4.35 pm. It was chaired by ANGVA President, Mr. Hesham Ali Mustafa. Board members present at the meeting were: Mr. Fazal Ali Khan, Mr. Punnachai Footrakul, Mr. William Aw, Ms Brenda Smith, Mr. John Cai (representing Mr. Jin Gang of SDEC), and Secretary Lee Giok Seng. Also in attendance were Mr. Tariq Al Hashimi (Emirates Gas, UAE) and Mr. Kriengkai Potipiyanvisut (PTT Plc, Thailand).

4.1.3 24th ANGVA Board Meeting, 13th May 2013, Dubai, UAE.

The 24th ANGVA Board Meeting was held from 2.15 p.m. till 6.15 p.m. at Raffles Hotel, Dubai, UAE, on 13th May 2013. It was chaired by ANGVA President Mr. Hesham Ali Mustafa. Board members present at the meeting were: Mr. Fazal Ali Khan, Mr. Punnachai Footrakul, Mr. William Aw, Ms. Brenda Smith, and Secretary Lee Giok Seng. In attendance were Mr. Tariq Al Hashimi & Ms. Shafia Abdulla Mohammed (from Emirates Gas, UAE), Mr. Sompol Wairatpanich & Ms. Nopamat Kittipornpaibon (from PTT Plc, Thailand), and Mr. Vincent Choy (from All Events Group, Singapore - providing secretariat support).



4.2 ANGVA Members Meetings

4.2.1 2nd ANGVA Safety Advisory Panel (ASAP) Meeting, 29th March 2012, Bangkok, Thailand

The 2nd ASAP meeting was held from 2.10 to 3.30 p.m. It was chaired by Mr. Fazal Ali Khan. Four (4) ASAP members and 12 observers (ANGVA members and invited guests) were present at the meeting. Meeting started with PTT Plc sharing the 4 recorded safety incidents that happened in Thailand since 2004 and the various safety initiatives undertaken by PTT to ensure the safety of the NGV industry in Thailand.



4.2.2 ANGVA Strategic Planning Meeting, 12-13th November 2012, Bangkok, Thailand

A one and a half day (1.5 day) ANGVA Strategic Planning Meeting (SPM) was conducted on 12th -13th Nov 2012 in Bangkok, Thailand to chart new direction and strategies for ANGVA to enable it to better serve its members and the NGV industry in the region. The meeting was lead by ANGVA President Mr. Hesham Ali Mustafa, and facilitated by a professional facilitator engaged by ANGVA Secretariat. Five (5) board members and seven (7) invited guests were involved in the SPM.

4.3 ANGVA Workshops and Organised/Co-organised Events

2012

4.3.1 ANGVA Training Session on "Introduction to NGV-CNG Vehicles Inspection" for PUSPAKOM, 18th April 2012, Shah Alam, Malaysia

On 18th April 2012, ANGVA Executive Director (Lee Giok Seng) conducted a training session on "Introduction to NGV-CNG Vehicles Inspection" for PUSPAKOM at their training centre, Section 28, Shah Alam, Selangor, Malaysia. The half day training session focused on the requirement of the Malaysian Standard MS1096:2011 - Road Vehicles - The Use of Compressed Natural Gas Fuel for Vehicle Engines - Code of Practice (Second Edition). The session was divided into 3 parts: Understanding of NGV Fuel Systems; Installation of NGV Kits on Vehicles; and Introduction to Inspections of NGV Vehicles as required by MS 1096:2011. Certificate of Attendance was awarded to participants at the end of the session.

A total of 26 PUSPAKOM staff, including vehicle examiners from different inspection centres throughout the country attended the session. PUSPAKOM is the company appointed by the Malaysian Road Transport Department (RTD) to conduct vehicle inspections including the half yearly mandatory inspection of all commercial vehicles, and inspections to approve conversion of vehicles to CNG/NGV.



4.3.2 ANGVA Half Day Seminar on "Ensuring NGV Safety in Malaysia Through Meeting The Requirements of MS1096:2011, 23rd May 2012, Puchong, Malaysia

On 23rd May 2012, ANGVA organized a half day seminar to help key NGV players, especially those involving in vehicle conversions and inspections in Malaysia, understand the requirement of the Malaysian Standard MS1096:2011 (Road Vehicles - The Use of Compressed Natural Gas Fuel for Vehicle Engines - Code of Practice (Second Edition)), to ensure safety of the natural gas vehicles in the country. The Malaysian Road Transport Department requires that all natural gas vehicles in Malaysia comply with MS1096:2011.

The half day safety seminar was conducted by Lee Giok Seng, Executive Director of ANGVA, whom have considerable experience in vehicle conversions and NGV programme in Malaysia. The seminar was supported by Sime Darby Industrial Sdn Bhd (a member of ANGVA) and was held at their training centre in Puchong, Selangor, Malaysia. It was attended by 60 participants from various segment of the NGV industry in Malaysia including government departments, conversion workshops, universities, etc.



2013

4.3.3 CNG-NGV ANGVA Forum 2013, 14-16th May 2013, Dubai, UAE.



CNG-NGV ANGVA Forum 2013 successfully held at the Raffles Hotel, Dubai, United Arab Emirates (UAE), 14th - 16th May 2013. The event, which was organized by All Events Group on behalf of ANGVA, consisted of a 2 day forum and a technical visit to Abu Dhabi National Oil Company (ADNOC) NGV facilities on the third day. The Forum was hosted by Emirates National Oil Company Ltd (ENOC) and Emirates Gas, Dubai. A total of 103 delegates from 12 countries attended the forum with 8 exhibitors from 7 countries. A total of 22 delegates join the technical tour to the ADNOC NGV facility at Kalifa City, Abu Dhabi.



The event was officially opened by Mr. Saeed Khoory, Chief Executive Officer of ENOC followed by a keynote address by Engr. Mohammad Salah Badri, Acting Managing Director of Emirates Authority for Standardisation & Metrology (ESMA) on behalf of the UAE Minister of Environment & Water. Mr. Zaid Alqufaidi, Managing Director - Marketing, ENOC, provided an overview of

ENOC's green initiatives which includes promoting the usage of CNG for passenger boats 'ABRA' for the Dubai Creek and Road Transport Authority (RTA)'s buses and taxis.

4.4 Endorsed Events

2012

4.4.1 CNG Infrastructure, Equipment Selection and NGV Conversion Seminar, 12-13th April 2012, Jakarta, Indonesia.

The event was successfully held in Jakarta, Indonesia, 12th - 13th April 2012 at the Dharmawangsa Jakarta Hotel. The two days event was organized by NGV Transportation and supported by ANGVA and the Indonesian CNG Owners Association (APCNGI). It was attended by 174 delegates and 14 exhibitors from 17 countries.

A total of 14 speakers from various background and countries spoke at the event. On Day 1, speakers covered topics on "CNG Infrastructure and Equipment Selection" and on Day 2, speakers covered topics on "NGV Conversion". The event brought together key international and local players in light of announcement of an allocation of a substantial budaet and the appointment of the national oil and gas company, PERTAMINA, to lead in the implementation of the NGV projects in Indonesia.





4.4.2 CNG-NGV Central Asia Forum, 14-16th June 2012, Tashkent, Uzbekistan

The Central Asia Natural Gas Vehicles Exhibition & Conference 2012 was held at the Uzexponcentre, Tashkent, Uzbekistan. This event was co-organized by NGV Transportation / All Events Group of Singapore with the Association - Enterprises of Alternative Fuel and Energy of Uzbekistan and supported by the Chamber of Commerce of Uzbekistan. This event was endorsed by ANGVA as Uzbekistan is in the Asia Pacific region of ANGVA.

This was the first time that ANGVA endorsed and participated in an event in Central Asia.

The event was attended by 140 delegates from 13 countries and 34 exhibitors from 10 countries. Beside the two days conference and three days exhibition, visits to two CNG refuelling stations were also organized.



4.4.3 CNG-Vietnam Forum 2012, 1-3rd Aug 2012, Ho Chi Minh City, Vietnam.

The CNG-NGV Vietnam Forum 2012 was held at the New World Saigon Hotel, Ho Chi Minh City, Vietnam, 1st - 3rd August 2012. The event was officiated by HE Thanh Tran Viet, the Deputy Minister of Science and Technology, and was attended by 80 delegates and 3 exhibitors.

Many interesting papers from local and overseas speakers were presented at the event. Among the local papers were those by: Mr. Ngo An Hien, Director of PetroVietnam on "Vietnam Gas Master Plan 2025", Mr. Dinh Dang Vu, Deputy Manager of Safety and Technical Department, PetroVietnam Southern Gas Joint Stock Company on "Developing An Effective CNG Transportation Supply Chain for Industries".



4.4.4 China NG 2012 - 4th China International Exhibition on NGV, 12-14th Sept 2012, Nanjing, China

The NG, China 2012 (the 4th China International Exhibition on NGV, Engines, Gas Refuelling Stations & Hydrogen Energy) was successfully held in Nanjing, China, 12-14th September, 2012. This event was hosted by the China Industrial Gases Industry Association (CIGIA) and organized by AIT Events Co., Ltd, Beijing, China. This event was endorsed by ANGVA for the first time. NGV Global also participated in the event.

NG, China 2012 and IG, China 2012 attracted over 200 companies from 30 countries covering exhibition space of around 13,000 m2.



2013

4.4.5 7th Natural Gas Vehicles & Infrastructure Indonesia Forum and Exhibition 2013, 31st - 1st Feb, 2013, Jakarta, Indonesia



The 7th NGV & Infrastructure Indonesia Forum was held at the Dharmawangsa Hotel, Jakarta. It was attended by 229 delegates from 16 countries; among them were China, Italy, Turkey, Korea and India. A total of 23 exhibitors from 8 countries displayed their products and services at this Forum.

Many interesting papers from local and overseas speakers were presented and the ANGVA Roundtable panel held a discussion on "Building a Sustainable NGV Infrastructure" with panellists from Italy, UAE, Philippines and Indonesia.

4.4.6 NGV China 2013, 14th China International NGV Station Equipment Expo, 8th - 10th May 2013, Beijing, China

NGV China 2013 was held at the Beijing National Agricultural Exhibition Hall (New Hall) in Beijing, China, 8th - 10th May 2013. ANGVA and NGV Global endorsed this event. ANGVA was represented by Executive

Director Lee Giok Seng and NGV Global by Deputy Chairman Phils Fathers. The 3 days exhibition and 2 days forum was well attended by delegates and visitors. A total of 50,000 m2 of exhibition space was taken up by exhibitors from China and overseas exhibiting both CNG and LNG equipment and systems for the transportation sector.



4.4.7 Natural Gas Vehicles (NGV) Philippines Roundtable Forum 2013, 8th Oct 2013, Manila, Philippines



NGV The Natural Gas Vehicles (NGV) Philippines Roundtable Forum 2013 was successfully held at the Pan Pacific Manila Hotel, Manila, Philippines on 8th October 2013. The Forum was organized by All Events Group and supported by ANGVA and PNOC Exploration Corporation (PNOC EC). The Forum was limited to 30 participants, locally and overseas. It was officiated by Ms. Loreta G. Ayson, Undersecretary of Department of Energy who also delivered the keynote address. Four speakers from PNOC EC, ANGVA, CNG Association of Indonesia, and Hexagon Composites, spoke at the Forum. Two panel discussions were convened.

4.5 <u>Participated Events</u>

2012

4.5.1 World Gas Conference 2012, 4 - 8th June 2012, Kuala Lumpur, Malaysia.

The 25th International Gas Union (IGU)'s triennial international conference & exhibition was held at the Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia from 4th to 8th June 2012. This prestigious natural gas event was hosted by PETRONAS, the national oil & gas company of Malaysia.

A total of 5,299 delegates from 90 countries, 220 exhibitors and 13,803 trade visitors participated in the event. Over 70 conference sessions including keynote addresses, strategic panels, luncheon addresses, technical committee sessions, and expert fora were presented at this event. And a total of 122 technical poster papers were presented through an "Interactive Expert Showcase" medium at the exhibition area.



Two NGV sessions were convened at the WGC 2012. The first was the Committee Session 5.3, WOC5: Natural Gas Vehicles (NGV): the Solution for a Low Carbon Society, on 6th June 2012. The second session was the Strategic Panel 7 session, Natural Gas Vehicles - Sustainability & Opportunity on 7th June 2012.

4.5.2 NGVA Europe Bologna 2012, 19-21st June 2012, Bologna, Italy

The 3rd annual NGVA Europe's Conference and Exhibition was held at the Bologna Fiere Exhibition Centre, Bologna, Italy, 19th to 21st June 2012. ANGVA supported and attended this NGV Bologna 2012 event as it was hosted by the European Regional NGV Association (NGVA Europe). The event organized by NGV Communications Group.

The NGV Bologna 2012 event saw the participation of 77 exhibitors from 20 countries and 2,500 trade visitors from 40 countries. Around 80 participants attended the workshops. The workshops covered latest policies, markets, OEMs, and technologies development in Europe, especially in the areas of Biomethane / Bio-Natural Gas, Dual Fuel (diesel) heavy duty vehicles and LNG for heavy duty vehicles.



4.5.3 Biogas Asia Pacific Forum 2012, 18-20th July 2012, Bangkok, Thailand

The Biogas Asia Pacific Forum 2012 was held at the Pathumwan Princess Hotel, Bangkok, Thailand, 18-20th July 2012 with a site tour to an electricity generation plant using biogas from landfill on 20th July 2012. ANGVA Executive Director, Lee Giok Seng was invited to present a paper on "Biogas - The Renewable and Green Fuel for Natural Gas Vehicles".

4.5.4 4th National Energy Forum, 27th Sept 2012, Kuala Lumpur, Malaysia

ANGVA Executive Director attended the 4th Malaysian National Energy Forum on 27th Sept, 2012 at Sheraton Imperial Hotel, Kuala Lumpur, Malaysia. The theme of the forum was "Building A Framework Towards A Sustainable Energy Future". The forum was officially opened by the Malaysian Minister of Energy, Green Technology and Water, Peter Chin Fah Kui and attended by around 150 participants.

It was reported that natural gas prices to all sectors of the economy in the country are below the actual market price of natural gas. The differences in prices are being absorbed by PETRONAS, the sole supplier of natural gas in Malaysia. Prices of natural gas need to move towards market prices in order for the natural gas sector in the country to continue developing and growing.



4.5.5 PETRONAS NGV Safety Awareness Campaign, 28th Sept 2012, Melaka, Malaysia

On 28th Sept 2012, ANGVA was invited to participate in the PNGV's NGV Safety Awareness Campaign at a PETRONAS NGV Public Refuelling Station at Batu Berendam, Melaka, Malaysia. The campaign was to create awareness and educate the public and users on NGV safety requirement and the importance of adhering to these requirements such as: switch-off vehicle engine when refuelling; not smoking and using mobile phone while refuelling; ensuring there were no leakages of the NGV system in the vehicles; and conduct periodic

maintenance and inspection of the NGV system and components especially the periodic recertification of CNG cylinders onboard vehicles.

The campaign was officiated by the Ministry of Domestic Trade, Cooperatives and Consumerism (MDTCC) State Director, Mr. Muhabir Ibrahim, accompanied by Chairman of PNGV, Mr. Pramod Kumar Karunakaran and Chief Executive Officer of PNGV, Mr. Akbar Mohd Thayoob. ANGVA Executive Director, Lee Giok Seng, gave a briefing on NGV safety incidents that had occurred in various part of the world with a note that such incidents will and can happen again if safety requirements are not followed.

4.5.6 International Energy Agency - Advanced Motor Fuels (IEA - AMF) 44th Executive Committee Meeting, 23-26th Oct 2012, Beijing, China.

ANGVA Executive Director attended the 44th Executive Committee (44th ExCo) of the International Energy Agency Advanced Motor Fuels Implementing Agreement Group (IEA-AMF), 23rd - 26th Oct 2012, Beijing, China, as an Observer and also gave briefing on "Status and Challenges of NGV Markets in Asia Pacific region to the meeting.

The meeting was chaired by Professor Nils-Olof Nylund of VTT Technical Research Centre of Finland and was attended by 31 representatives from 15 countries and was hosted by China Automotive Technology & Research Centre (CATARC), a member of IEA-AMF.

During the 44th ExCo meeting it was agreed that AMF and ANGVA can collaborate with ANGVA providing information on natural gas HD vehicles population and emissions including for DDF HD, in selected countries (especially those having Euro III limits) in the Asia Pacific region.



2013

4.5.7 LNG Malaysia Forum 2013, 19th - 21st March 2013, Kuala Lumpur, Malaysia



The inaugural LNG Malaysia Forum 2013 was successfully held in Kuala Lumpur, Malaysia, 19 - 21st March 2013. The 3-Day event comprises of a 1-day pre-conference workshops and a 2-day conference. It was organized by the Malaysian Gas Association (MGA) with the support and endorsement of PETRONAS Gas & Power Division and International Gas Union (IGU). Gaztransport & Technigaz (GTT) was also a sponsor and Technip a supporter of the Forum. The Forum received overwhelming participations from local and overseas participants.

Three workshops were organized on 19th March 2013. In the morning, Workshop A: Introduction to LNG Business was facilitated by Alexander Harsema-Mensonides from Marine Service GMBH. The workshop covered the basics and history of LNG business along the value chain from liquefaction, LNG carriers, regasification, trading and pricing. In the afternoon, two parallel workshops were held: Workshop B on LNG Floating Storage Regasification Unit (FSRU) Technology - A Closer Look at LNG FSRU Arrangement by Alexander Harsema-Mensonides and Workshop C on LNG Regasification: An Onshore and Offshore Comparison by Simon Newton, Thyssen Krupp Udhe Energy and Power. Both workshops B and C, elaborated in more details on the subjects of FSRUs, RGTs and LNG carriers.

4.5.8 Seventh Regional Environmentally Sustainable Transport Forum (7EST), 23rd -25th April 2013, Bali Indonesia

ANGVA participated in the "Seventh Regional Environmentally Sustainable Transport Forum in Asia" (7th

EST) that was held at the Bali International Conference Centre, The Westin Resort Nusa Dua, Bali, Indonesia, from $23^{\rm rd}$ to $25^{\rm th}$ April 2013.

The forum was co-organised by the Ministry of Transportation of Indonesia, The Ministry of Environment of Japan and The United Nations Centre for Regional Development (UNCRD).

The Forum was attended by over six hundred participants comprising of government representatives from twenty four countries.



4.5.9 Training of Trainer Programme, 3rd June 2013, Kuala Lumpur, Malaysia

ANGVA was invited by C. Melchers GmbH, Singapore (a member of ANGVA) to participate in their "Training of Trainers" programme for NGV instructors for GIATMARA, a local Malaysian training institution. GIATMARA

is a government skills training institution with branches nationwide. ANGVA Executive Director gave a 2 ½ hours lecture on "Ensuring NGV Safety in Malaysia through Meeting the Requirement of MS1096:2011" emphasizing on the importance of understanding and adhering to the requirement of the local regulations and standards for the conversion of vehicles to operate safely on natural gas in Malaysia.



4.5.10 PETRONAS NGV Safety Awareness Campaign, 11th June 2013, Kuala Lumpur

ANGVA was invited to participate in the PETRONAS NGV Sdn Bhd (PNGV) NGV Safety Awareness Campaign that was held at the NGV Refuelling Station near the Kuala Lumpur International Airport (KLIA). The event

was organized by PNGV to create NGV safety awareness among users of NGV especially among the taxi drivers in the vicinity of the KLIA. The event saw participation from taxi associations, taxi drivers, key government departments including Police and Fire Services and the Ministry of Domestic Trade, Cooperatives and Consumerism (KPDNKK). ANGVA Executive Director was invited to give a briefing on NGV Safety at this event.



4.5.11 Biogas Asia Pacific Forum, 2013, 12-14th June 2013, Kuala Lumpur, Malaysia

The 2nd Annual Biogas Asia Pacific Forum was held at the JW Marriot Hotel, Kuala Lumpur, Malaysia, 12 - 14th June 2013 with a site tour to a Plant producing biogas from POME (Palm Oil Mill Effluent) on 14th June. The Forum was organized by the International Clean Energy & Sustainability Network (ICESN) of Singapore

and supported by the Malaysian Biotechnology Corporation Sdn Bhd (Biotechcorp) and Ministry of Energy, Green Technology and Water, Malaysia (keTTHA). ANGVA Executive Director participated and presented a paper on "Opportunities For Biogas As A Renewable Fuel For Natural Gas Vehicles In The Asia Pacific Region" at this Forum.



4.5.12 1st NGV Safety Workshop of the Malaysian NGV Installer Association (MANGVI), 3rd July 2013, Kuala Lumpur, Malaysia

The 1st NGV Safety Workshop by the Malaysian NGV Installer Association (MANGVI) was held at Nouvelle Hotel, Kuala Lumpur, Malaysia. The workshop was attended by around 60 participants, mainly from members of MANGVI. ANGVA was invited to participate as one of the speaker at this event. MANGVI had recently joined ANGVA as a member.



Lee Giok Seng, Executive Director of ANGVA, spoke on the implications of not adhering to the safety requirements as laid out in the Malaysian Standard MS1096:2011. He pointed out that all NGV conversions in Malaysia must follow MS 1096 and the relevant authority in Malaysia must monitor and enforce this requirement to ensure safety of the NGV market in Malaysia. The requirement of MS 1096: 2011 includes the need to periodically inspect CNG cylinders every 48 months or 36 months, depending on the standard used. However, currently this periodic re-inspection requirement is not being practiced and enforced in Malaysia.

4.6 ANGVA 2013

The 5th ANGVA Biennial International Conference & Exhibition, ANGVA 2013, is being held at the India Expo Centre, Greater Noida, New Delhi, India. The theme of ANGVA 2013 is "Natural Gas For Vehicles - The Next Generation". Many key NGV industry players, both from India and overseas are expected to participate in ANGVA 2013 as delegates, exhibitors, speakers, and visitors.



In-conjunction with ANGVA 2013, the 5th Biennial General Meeting will be held on 28th November 2013.

4.7 Income and Expenditure

4.7.1 Audited Income & Expenditure Statement Year 2011, 2012 and Unaudited of 2013

| Income | Audited 2011 (USD) | Audited 2012 (USD) | Unaudited 2013 (USD) As at 31 st August'13 |
|---|-----------------------|-----------------------|---|
| Entrance & Subscription fees | 54,901 | 53,956 | 36,820 |
| Conference & Exhibition | 106,390 | - | - |
| Forum, Endorsement & Miscellaneous | 15,494 | 9,928 | 5,287 |
| Total | 176,785 | 63,884 | 42,107 |
| Local & Oversea Travelling | 6,962 | 7,484 | 4,419 |
| ANGVA Green Highways | 22,730 | - | - |
| Loss on foreign exchange | 6,436 | 12,458 | 370 |
| Bank Charges | 929 | 721 | 445 |
| Telephone Bill | 703 | 578 | 38 |
| Staff Salary | 40,440 | 18,701 | 8,860 |
| Provision for doubtful debts | 9,417 | 9,836 | - |
| ANGVA website | 2,255 | 1,651 | 1,419 |
| Meeting expenses | - | 6,631 | - |
| Office Rental | 7,975 | 7,631 | - |
| Bad Debts written off | 2,871 | 6,173 | - |
| Printing, Stationary & Office Equipment | 3,021 | 417 | 215 |
| Depreciation of Fixed Assets | 2,583 | 544 | - |
| Courier & Postage | 218 | 154 | - |
| Audit & Tax Advisory Fee | 2,270 | 2,256 | 2,091 |
| Sundry Expenses | 1,699 | 8,530 | 574 |
| Subscription | 1,042 | 1,083 | 940 |
| Total | 111,551 | 84,848 | 19,371 |
| Surplus of income over expenditure before tax | 65,234 | (20,964) | 22,736 |
| Taxation | - | - | - |
| Surplus for the period | 65,234 | (20,964) | 22,736 |

Note:

- 1. The Income and Expenditure for 2011 and 2012 were abstracted from the certified audited accounts report prepared by the appointed external auditor firm of Ernst & Young. The reports were in the currency of Malaysian Ringgit (MYR). The conversion rates used for the above reports were: for 2011 MYR1 = USD 0.31770; for 2012 1MYR = USD0.30583. Members wishing to view the Audited Account Reports for 2011 and 2012, please contact the ANGVA Secretariat.
- 2. The Income and Expenditure for 2013 (up to 31st August'13) is based on current status and not yet audited. Conversion rate used for 2013:1MYR =USD0.32995

5.0 SUMMARY

ANGVA had carried out many activities and programmes for the past two years (2012-2013). ANGVA will continue to conduct its activities and programmes as per its strategic plan for the benefits of its members and the NGV industry for the coming term of 2014-2015. ANGVA would like to invite members to support and actively participated in all its activities and programmes. Sponsorships and contributions are most welcome.

The next Biennial Report will be issued during the next Biennial General Meeting to coincide with the 6th Biennial Conference & Exhibition, ANGVA 2015.

END