



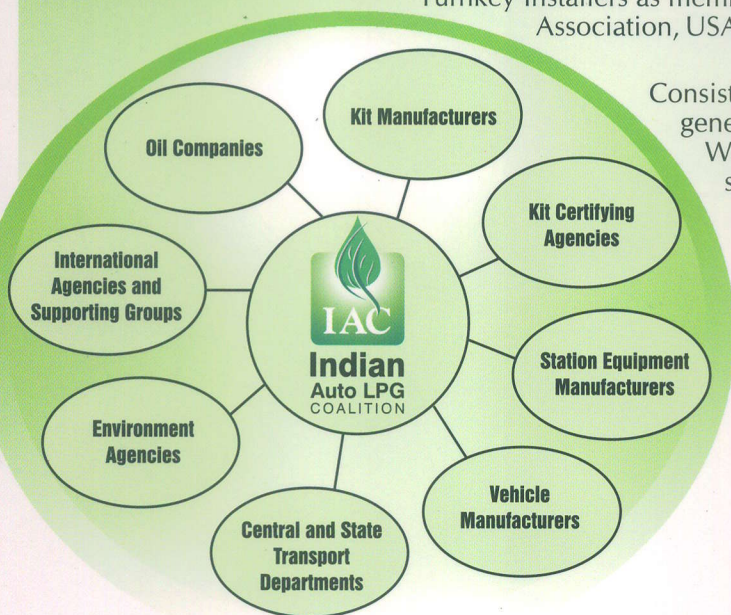
Indian Auto LPG COALITION

Fuelling a greener future

Today Auto LPG is available in more than 350 cities with a network of close to 750 stations, which makes it the most widely available alternative fuel. This has encouraged an increasing number of vehicle owners to convert to Auto LPG, an economical & environment friendly fuel – paving way for India to become one of the leading Auto LPG markets of the world in the next few years.

Low costs of infrastructure and conversion, easy availability, versatility of use and of course, an impeccable safety record makes Auto LPG a viable, un-adulterable, environment friendly alternative auto fuel in India.

IAC, a member of "Central Motor Vehicle Rules - Technical Standing Committee" (CMVR-TSC), "Standing Committee on Emission Legislation" (SCOE), & TED26 (Bureau of Indian Standards), Government of India, is widely recognized as the nodal body for the Auto LPG Industry in India with practically all major stakeholders on Board. IAC membership base is expanding rapidly and we have the Oil Sector PSUs, Private LPG Marketers, Kit Suppliers, Equipment Manufacturers and Turnkey Installers as members, in addition to a very proactive support of World LP Gas Association, USAID, ARAI and SIAM.



Consistent efforts are made by IAC to increase awareness among the general public and government bodies through Seminars, Workshops. Many such workshops have been organized for several State RTOs like Maharashtra, Karnataka, Department of Legal Metrology, ARAI and with PESO. IAC is also represented in World LP Gas Association and has participated in its activities in France, USA, China and South Africa. IAC has also initiated very meaningful interactions with leading OEs.

Mission

Promote LPG in an integrated manner, as an alternate, gaseous, environment friendly fuel by involving all stakeholders to bring a cost effective & safe auto fuel to Indian consumers, using the best global practices.

A unique coalition with all the critical stakeholder groups working together closely

Economy of a diesel vehicle, **Emissions** of a CNG engine and **Performance** of a petrol engine



More than 350 Cities & Towns Covered with an ALDS Network of over 750 Stations

Adoor	Burhanpur	Godhra	Kayamkulam	Miraj	Perumthuruthy	Tenkasi
Ahmedabad	Calicut	Gondal	Keesara	Miryalguda	Perundurai	Thane
Ahmednagar	Challakudy	Gondkhari	Keezhillam	Moovattupuzha	Phaltan	Thanjavur
Akola	Chandrapur	Gulbarga	Keshod	Morbi	Pilathara	Theurphata
Alandi	Changaramkulam	Guntur	Khamgaon	Mukkam	Piravom	Thiruvalla
Alappuzha	Chenganassery	Guwahati	Khammam	Mumbai	Pollachi	Thodupuzha
Alibaug	Chennai	Gwalior	Khed	Muttathara	Ponkunnam	Thriprayar
Aluva	Chennaryapatana	Halol	Khedshivapur	Muzhupilangadu	Pune	Thrissur
Amreli	Cherthala	Harda	Khopoli	Mysore	Puttur	Thuravur
Amreli	Chidambaram	Harippad	Kodimatha	Nagpur	Rahata	Tinsukhia
Anand	Chikmaglur	Hassan	Kodungalloor	Naidad	Rajkot	Tiruchengode
Anantapur	Chiloda	Hissar	Kolenchery	Nalgonda	Rajula	Tirupati
Angamaly	Chinchwad	Hosur	Kolhapur	Namakkal	Ranga Reddy	Tiruppur
Ankleshwar	Chittoor	Hubli	Kolkata	Nanded	Ranipet	Tirur
Attingal	Cochin	Hyderabad	Kollengode	Nasik	Ratnagiri	Tricharapally
Aurangabad	Coimbatore	Ichalkaranji	Koothattukulam	Nathdwara	Sabarkhantha	Tripunithra
Babra	Dabhoi	Idar	Kotakkal	Navda	Sagar	Trivandrum
Bamanbore	Dahod	Indore	Kothamangalam	Navi Mumbai	Salem	Tumkur
Bangalore	Davangere	Irinjilkuda	Kottarakara	Navsari	Samarvani	Udaipur
Banswara	Deesa	Islampur	Kottayam	Nellore	Sanand	Udupi
Baramati	Delhi	Jaisinghpur	Krishnagiri	Nelmangala	Sangamner	Ulhasnagar
Bardoli	Devanahalli	Jalgaon	Kulur	Nilambur	Sangli	Ulundurpet
Baroda	Dewas	Jalna	Kuntal	Nileshwar	Sankari	Vadodara
Bavla	Dhandulka	JamNagar	Latur	Nimuch	Satara	Valsad
Belgaum	Dharmaj	Jamshedpur	Limbdi	Nizamabad	Sawad	Vapi
Bellary	Dharwad	Jetpur	Madhapur	Oachira	Secunderabad	Vasai
Bhachau	Dhule	Jorhat	Madurai	Pala	Shadnagar	Vega
Bhandara	Indigul	Junagarh	Mala	Palakkad	Shameerpet	Vellore
Bharuch	Dondaicha	Kadodra	Malappuram	Palanpur	Shamlaji	Vijapur
Bhavani	Eluru	Kakkanad	Mandsaour	Panvel	Shimoga	Vijayanagram
Bhavnagar	Ernakulam	Kalyan	Mandya	Pardi	shirur	Vijaywada
Bhayander	Erode	Kalyani	Mangalore	Patan	Silvassa	Visakhapatnam
Bhiloda	Ettumanoor	Kanchipuram	Manjeshwaram	Pathanamthitta	Solapur	Vita
Bhimawaram	Gandhidham	Kanjirappally	Mannarkad	Peddamberpet	Sulthan Bathery	Waluj
Bhopal	Gandhinagar	Kannur	Mehsana	Perumbavoor	Surat	Warangal
Bilawali	Ghaziabad	Karad	Melmaruvathur	Perumpilavu	Surendranagar	Yavatmal
Bilimora	Goa	Karimnagar				

AUTO LPG : Promise for a Cleaner Air

Auto LPG: The World

About 60% of the world's LPG output is got from natural gas processing and only 40% comes in from crude refining resulting in an increased energy security for gas rich nations like India.

More than 13 million vehicles run on Auto LPG globally, supported by close to 52,000 LPG Filling Stations. Global Auto LPG consumption exceeds 20 Million Tonnes, in comparison to India still at about 0.3 Million Tonnes level. South Korea leads the world in the usage of this clean Auto Fuel with sales of more than 4 million tones. Other nations which have successfully adopted this green fuel for their transportation requirements are Turkey, Poland, Japan, Australia, Italy, Mexico, USA, Russia & China.

Low costs of infrastructure and conversion, easy availability, versatility of use and of course, an impeccable safety record makes Auto LPG the only viable, un-adulterable and environment friendly alternative auto fuel in India.

What is LPG?

LPG is a clean, high octane, abundant and eco-friendly fuel. LPG is obtained both from natural gas processing through fractionation and from crude oil refining. It is a mixture of petroleum gases like ethane and butane.

LPG is a gas at atmospheric pressure and normal temperatures, but it can be liquefied when moderate pressure is applied or when the temperature is sufficiently reduced. This property makes LPG an ideal energy source for a wide range of applications, as it can be easily condensed, packaged, stored and utilised. When the pressure is released, the liquid makes up about 270 times its volume as gas, so large amounts of energy can be stored and transported compactly.

Can Auto LPG be used legally?

The use of LPG as an automotive fuel has become legal in India with effect from April 24, 2000 with the prescribed safety terms and conditions. Hitherto, the thousands of LPG vehicles running in some Indian cities had been doing so illegally by using domestic LPG cylinders, a very unsafe practice. Using domestic LPG cylinders in automobiles is still illegal.

Why LPG-as an alternative fuel?

LPG impacts greenhouse emissions less than any other fossil fuel.

LPG is a clean burning, high octane and an environment friendly fuel.

In one of the studies, findings state that LPG vehicles emit significantly less pollution than their diesel and petrol fuel counterparts.

Auto LPG Emissions*

A brief comparison of vehicular emissions of Auto LPG vis-à-vis Petrol and Diesel is:

Compared to Petrol	Compared to Diesel
75% less Carbon Monoxide	90% less Particulates
85% less Hydrocarbons	90% less Oxides of Nitrogen
40% less Oxides of Nitrogen	70% less Ozone forming potential
87% less Ozone forming potential	60% less Carbon Monoxide
10% less Carbon Dioxide	

* Based on tests undertaken at the independent Millbrook Vehicle Emissions Laboratories (UK) in 1998 and 1999.

Advantages of ALPG

Can be used in Passenger cars, three wheelers and two wheelers.

Can be easily transported and stored in stand-alone facilities.

LPG is pressurized as 7-10 bars as against 200 bars for CNG, which makes it safe and conventional fuel.

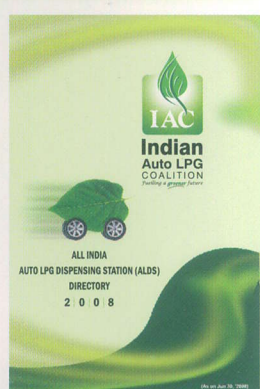
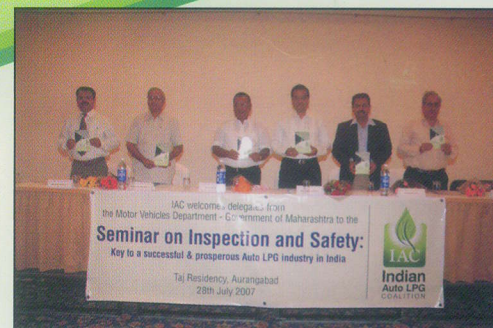
How safe is LPG in automobiles?

Unlike CNG, which is pressurized at 200 bars, LPG is pressurized at just 5-7 bars, which makes it as safe as conventional fuels. The automotive use of LPG has an excellent safety record and various crash tests and fire tests have proved that, owing to the strength and integrity of the fuel tank, it is safer than petrol and on a par with diesel. The conversion of vehicles to LPG has, of course, to be undertaken by a competent person working in accordance with the prescribed standards.

Booklet on Safe Practices / Checklist for LPG Operated Vehicles :

With the growing popularity of Auto LPG vehicles in India and taking into consideration that most of the cars are retrofitted, need was felt to educate the ALPG consumers and also the Transport Department officials on various aspects to safe fitment and usage of this alternate fuel in Vehicles. To help in this initiative a "Booklet on Safe Practices / Checklist for LPG Operated Vehicles" was prepared by IAC in coordination with ARAI.

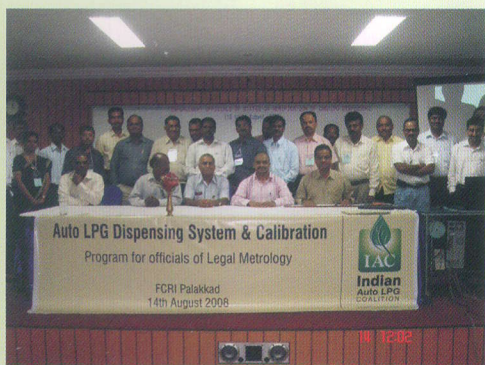
This booklet was released on 28th July 2007 by Mr. S.D. Shinde, Transport Commissioner- Maharashtra in Aurangabad during the Seminar on "Inspection and Safety – Key to Successful and Prosperous Auto LPG Industry in India". The ready reckoner is being extensively used by field officers from the Motor Vehicles Departments of various states in India.



All India ALDS Directory :

There are more than 750 Auto LPG dispensing stations (ALDS) covering more than 350 towns and cities in India. Need was felt to have a comprehensive Industry ALDS directory giving state wise ALDS addresses for the convenience of motorists using Auto LPG. The same was compiled and printed by IAC in the form of a directory. The Directory was released by Sh. Ajai Nigam, Chief Controller of Explosive on 19th July 2008 during the PESO – IAC Workshop on Safety in Nagpur.

10,000 copies of the ALDS directory were printed and arrangements were made to send the same to all ALDS in India for distribution to the ALPG customers, Retrofitment centres and vehicle showrooms.



Auto LPG Dispensing System & Calibration – Training Program for officials of Legal Metrology at FCRI-Palakkad.

During IAC's meeting with Director – Legal Metrology, Sh. R. Mathurbootham, IAC had expressed desire to be associated with any training program the department wished to conduct on Auto LPG.

The opportunity came when Fluid Control Research Institute (FCRI) extended invitation to IAC to conduct a session on "Auto LPG Dispensing System and Calibration" for Officials of Legal Metrology Dept.

Mr. John Joseph, President IAC & Sr. VP- RIL and Sh. Krishnamurthi Tadipatri, GM-RIL were present to take the sessions on 14th and 28th July '08, at FCRI's campus in Palakkad (Kerala) for about 60 officers of legal Metrology who came from across the country. Each training program comprised 2 ½ hours presentation and interactive session on Dispenser calibration followed by 3½ hours practical demonstration at RIL's Auto LPG dispensing station in Palakkad.

FCRI Officials expressed their thanks to IAC for the insight/ knowledge imparted towards Auto LPG which is a relatively new field in India.

Domestic LPG Vs Auto LPG Leaflet :

Presently the Auto LPG industry is battling with the widespread menace of diversion of cooking gas cylinder for automotive use. This is not only illegal but also unsafe and results in huge losses to the Government exchequer.

As one of the initiative taken by IAC to curb the diversion activity, it has designed a comprehensive leaflet explaining the ill effects of using domestic LPG in vehicles. It is proposed to print thousands of these leaflets and distribute the same to all LPG vehicle owners, retrofitters, OEM showrooms across the ALPG markets in India.

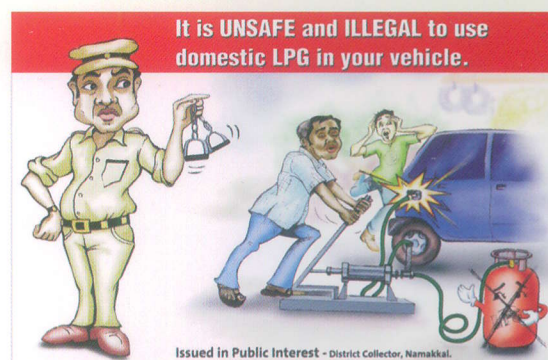
Bajaj Platina - 2-W ALPG Kit

Bajaj has recently launched Auto LPG Bike (Platina) in Gujarat. The Kit is supplied by Vanaz. The LPG cylinder is well fitted and camouflaged in the petrol tank area itself and not visible from outside. It has thus addressed the problem with retrofitted 2-W bikes where the tank is mounted on the rear carriage of the bike thus marring its aesthetics.

Bajaj Platina is a dual fuel bike with ALPG WC (water capacity) of 4.5 ltrs. while Petrol capacity is 1.25 ltrs. It is priced around Rs. 45,000/- which is Rs. 5000/- more than Petrol Platina. The bike performs satisfactorily on the power and mileage front. There is a good demand for the bike in Gujarat and there is some waiting period for the customers.

Campaign against use of Domestic LPG for Automotive purpose in Namakkal.

To curb illegal transfer of Domestic LPG for automobile use, IAC along with the active support of District Administration of Namakkal launched a social awareness campaign. Billboards and posters were put up at strategic location in the town; advertisements in local cable TV Channels were also flashed. The communication was designed in such a way, so as to deter people from indulging in the illegal and hazardous activity of Gas transfer.



CRACKDOWN BY AUTHORITIES ON ILLEGAL TRANSFER OF DOMESTIC LPG FOR AUTOMOBILE USE

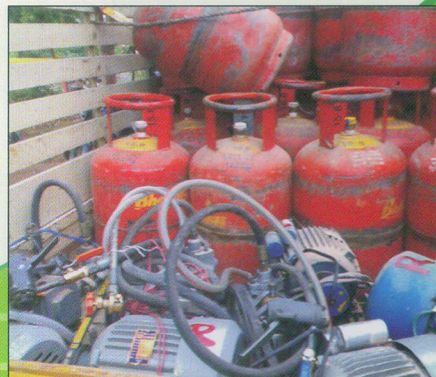
Auto LPG Industry has been severely impacted by the increased illegal use of Domestic LPG Cylinder as an Auto Fuel due to its easy availability at almost half the price of Auto LPG.

To counter this menace, IAC in close coordination with the Government authorities launched a drive against the use of "Red Cylinders". Accordingly, all communication material like leaflets, hoardings and newspaper inserts were designed to create awareness about the harmful and illegal aspects of "Red Cylinder" usage for the purpose of automotive fuel. Further, the industry collected all the data pertaining to all the illegal establishments who perpetuate to enable use of "Red Cylinders". This included list of all unauthorized Retrofitters, Suppliers of Domestic LPG Cylinders, Suppliers of transfer pumps and intermediaries.

The drive was launched across the different parts of the country and representations were made to the District Administration. IAC shared relevant information with concerned District Administration authorities and requested them to take appropriate action the control the menace of illegal filling which results in huge losses to the Government Exchequer.

The District authorities conducted raids at different locations resulting in seizure of Red Cylinders, refilling pumps/equipment worth lakhs of rupees. Raids were conducted in districts like Ahmednagar and Sangli in Maharashtra and Namakkal in Tamil Nadu. Efforts are on to organize and conduct more such campaigns in other cities and towns as well.

The raids were covered well by the Media and ensured proper coverage in the local newspapers which resulted in increase awareness amongst the General Public and significant increase in Auto LPG sales at the ALDS in the respective locations.



The Green Journey



IAC-RTO Nashik Seminar July 2009



IAC-RTO Nashik Seminar July 2009



Sh. Ajit Nigam (CCOE) lighting the inaugural lamp at the first PESO-IAC Conference in July 2008



Sh. Nigam, delivering the inaugural address



First PESO-IAC Conference 2008 attended by 100 delegates



IAC Contingent at Mumbai Marathon 2008



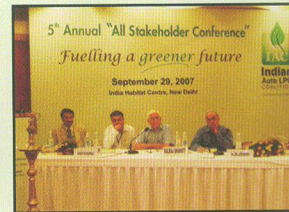
IAC Delegation at Auto Expo 2008



Shri S.K. Dash - Jt. Secretary, Ministry of Road Transport & Highways, Inaugurating Annual 'All Stakeholder Conference' Sept. 29, 2007



Shri P. Raghavendran - President - Reliance Ind Ltd. (Refinery Business) delivering the key note address at Annual 'All Stakeholder Conference' Sept. 29, 2007



Shri Bhaiji Bhanot - (Former Chairman CMVR Technical Committee) chairing the session on Retrofits at Annual 'All Stakeholder Conference' Sept. 29, 2007



More than 75 Delegates participated in Annual 'All Stakeholder Conference' Sept. 29, 2007



Ms Anurita Roy Chowdhury with Mr S R Marathe (Director-ARAI) and Mr M K Chaudhari (Sr. Dy. Director-ARAI) at Annual 'All Stakeholder Conference' Sept. 29, 2007



IAC President, Mr. John Joseph and Vice President, Mr. Sunil Mathur attended the WLP's GAIN Council meeting in Nice, France in May 2007. Mr. John addressed the gathering. The car in the photograph was driven down to Nice from Paris, 800 kms away, all the way on ALPG, in 9 hours.



IAC Organized Seminar on Inspection & Safety in Aurangabad on July 28, 2007



IAC Runners with Reliance President P. Raghavendran Participating in Mumbai Marathon 2007



IAC organized Seminar on Inspection and Safety in Mumbai on Sep 12, 2006



IAC organized LPG Kit Safety Check up camp at IOC LPG Station in New Delhi on Sep. 10, 2006.



IAC organized Workshop at ARAI Pune in 2006



Fourth All Stakeholder meet at Mumbai in September 2006



Complete Indian delegation with US Department of Energy team at Clean Cities International conference in Palm Springs, California, in May 2005



IOC Chairman Mr. Senthil Beharai (third from left) at IAC's booth in World LPG Forum at Shanghai. Standing to his left is Mr. Minal Roy (GM-LPG) IOC.



BPCL Director Marketing Mr. S Radhakrishnan (third from left) at IAC's booth in World LPG Forum at Shanghai. Standing to his right is Mr. R K Singh (ED-LPG) BPCL.



Mr. Pramod Nangia, Director, Ministry of Petroleum and Natural Gas (second from left), with Mr. S V Sahni (ED-LPG), Hindustan Petroleum Corporation Ltd at IAC booth in Shanghai.



(Standing left to right, Mr. Curtis Donaldson (President, CleanFUEL USA), Mr. David German (Assistant Secretary, US Department of Energy), Mr. John Joseph (President, IAC and VP Reliance Industries) and Mr. Suyash Gupta (General Secretary, IAC and Director, CleanFUEL India)



Front row, left to right, Mr. Shinde (Transport Commissioner Maharashtra), Mr. J. Joseph (IAC), Mr. Desai (Reliance), Mr. K. Bala Krishnan (USAI), Mr. K. Ganesh (SIAM), Mr. M. K. Chaudhari (ARAI). Standing left to right, Suyash Gupta (CleanFUEL), Ms. Maria Reidpath (NETL) and Embolity International rep



IAC Delegation with General Motors India VP Mr. Anshu Arora



IAC Delegation with Ford India President Mr. Arvind Mathew (4th from left)



ENVIRONMENTAL LEADERSHIP AWARD

Office Bearers



President

John Joseph
Sr. Vice President
Reliance Industries Ltd.
Joseph.John@ril.com



Vice President

R.N. Ghosh
Dy. General Manager
Indian Oil Corporation Ltd
rabindranthg@indianoil.co.in



General Secretary

Suyash Gupta
Managing Director
CleanFUEL India Autogas Pvt. Ltd.
suyash@vsnl.com



Treasurer

Shishir Agrawal
Managing Director
CLH Gaseous Fuel Applications Pvt. Ltd.
s.agrawal@shigan.net



Executive Committee Members

S K Hazra
Managing Director
Aegis Logistics Ltd.
skhazra@aegisindia.com



Shrikant Marathe
Director
Automobile Research Association of India.
director@araiindia.com



Balraj Bhanot
Former Chairman, CMVR Technical
Committee, Former Director, ARAI
& Founder Patron, IAC
bbhanot@gmail.com



K K Gandhi
Director- Technical
Society of Indian Automobile Manufacturers
kkgandhi@siamindia.com



Amit Shah
Managing Director
Ace LPG Kits (P) Ltd
amitshah007@vsnl.net



Raju Joseph, Secretary
Indian Auto LPG Kit Federation



V N Diwakar
Vice President
Business Development and Special Projects
SHV Energy Private Limited
diwakar@supergas.com



Rajiv Chohan
Managing Director
Shell Gas (LPG) India Private Limited
rajiv.chohan@shellpgindia.com



Sanjeev Agrawal
Sr. Manager
Design & Development : HQ
Bharat Petroleum Corporation Ltd.
agrawalsanj@bharatpetroleum.in



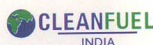
Pradeep Rungta
Director
Vialle Alternative Fuel Systems (P) Ltd
vialle@vialle.co.in



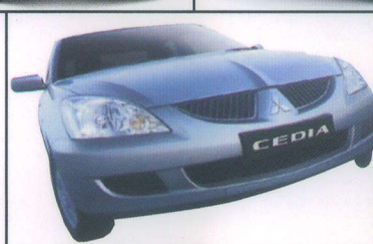
H. Kumar, GM-Retail Upgradation
Hindustan Petroleum Corp. Ltd.
kumarh@hpcl.co.in



Members



The Green Journey



& many more...

Factory Fitted LPG Variants



**Indian
Auto LPG
COALITION**
Fuelling a greener future

Indian Auto LPG Coalition
A-12, DLF Industrial Estate, Phase-1, Faridabad-121003
Ph. : + 91-129-4099 777
Fax : + 91-129-4107 877
<http://www.iac.org.in>