

26th World Gas Conference

1 – 5 June 2015 – Paris, France



PGCE-1



PGCE-1

Additional uses for gas, how do we go beyond gas to power?



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THE “GAS CHAIR” EXPERIENCE

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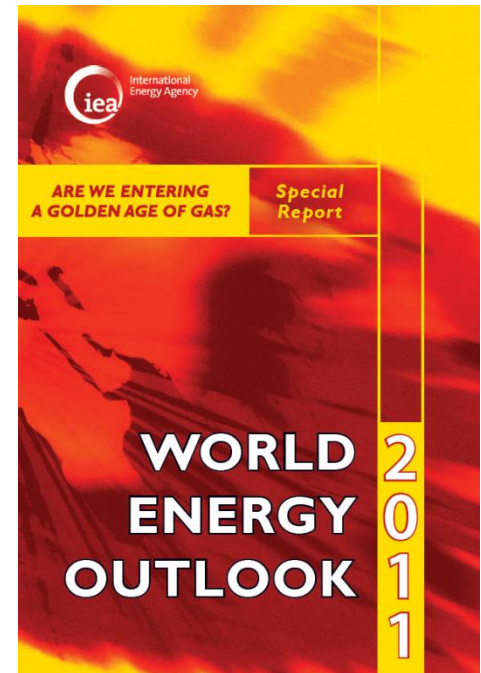
The “GAS CHAIR” Experience

- **Authors:**
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- **SUZY GASPARINI, Former Comgas’ communication responsible**

- **BACKGROUND**

The “GAS CHAIR” Experience - BACKGROUND

- Despite recent major changes in the global energy scenario ... Natural gas still expected to play a growing role in the global energy mix.
- Assumptions stated (for example) on IEA’s 2011 WEO Special Report “The Golden Age of Natural Gas” are still valid within the new international energy reality.



The “GAS CHAIR” Experience - BACKGROUND

- Our main criticism of IEA’s pro-gas scenarios ...
- Same ideas strongly supported by IGU’s referential studies.
- **Idea 1** - The perception that natural gas is a “**transition source of energy**” towards anything else (more sustainable);
- **Idea 2** - The dominant view that the main role for natural gas (mainly in emerging countries) is **GAS FOR POWER GENERATION**.

The “GAS CHAIR” Experience - BACKGROUND

- We **alternatively** work with the concept of building up a “**Natural Gas Civilization**”
- The transition process toward renewables-based energy mixes will be sufficiently slow
- and the **natural gas must be assumed as the main vector of a future global energy model.**
- Designing the Natural Gas Civilization.

Natural gas –
The construction of a new
civilization

*EDMILSON MOUTINHO DOS SANTOS, MURILO TADEU
WERNECK FAGÁ, CLARA BONOMI BARUFI &
PAUL LOUIS POULALLION*

The “GAS CHAIR” Experience - BACKGROUND

- The Natural Gas Civilization can not be built on the GAS TO POWER MODEL
- The Natural Gas Civilization necessarily means to promote additional uses for gas and **going beyond gas-to-power**.
- In emerging countries (and mostly evident in Brazil) ... building up the **Natural Gas Civilization** means to promote the **substitution of thermal uses of electricity** (“electrothermy”)
- The Natural Gas Civilization primarily means DIRECT USES OF NG ...
... rather than producing more power with gas.
- ... **GOING BEYOND GAS-TO-POWER is among all a challenging MARKETING AND COMMUNICATION issue.**

The “GAS CHAIR” Experience - AIMS

- AIMS

The “GAS CHAIR” Experience - AIMS

- Presenting the Gas Chair Experience.
- Communication initiatives in the state of Sao Paulo, Brazil
- Partnership between the IEE-USP and the Local Distribution Company, **Comgas**
- Supported by the Local Regulatory Agency, **Arsesp**
- Initiatives to promote “rational and efficient” uses of natural gas, beyond gas-to-power.



The “GAS CHAIR” Experience - AIMS

- A **six-years-long communication effort**

In the concession area of Comgas.

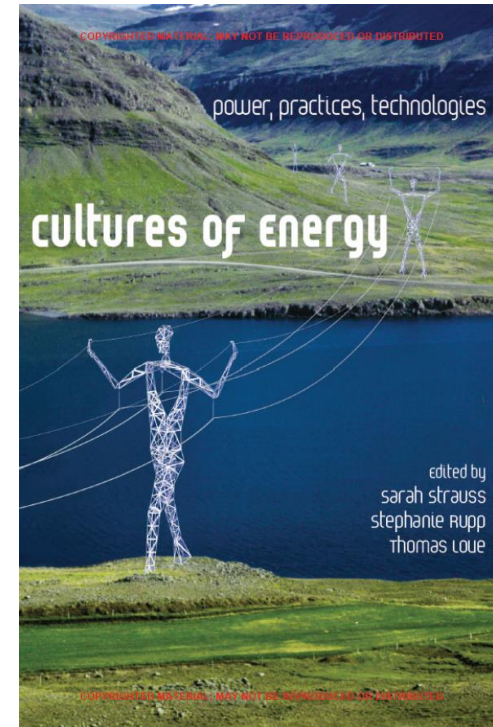
- Promotion of direct uses of natural gas in substitution of electricity.
- **Multiple communication actions focused on diversified audiences** (professionals, current and potential users as well as the youth in local public and private schools).
- **Promote the best practices** in natural gas uses
- **Reduce the cultural barriers** that make difficult the penetration and diffusion of direct gas uses in an emerging countries



- METHODS AND RESULTS

The “GAS CHAIR” Experience - AIMS

- The Gas Chair was based on a theoretical literature that emphasizes the cultural aspects determining societal final energy uses.
- Prosper energy strategies and planning must address at least three topics:
 - How people experience and utilize energies of various qualities (types),
 - How we rely on energy quantity and continued flow,
 - and how we connect both qualities and quantities of energy to construct socially meaningful messages.



The “GAS CHAIR” Experience - AIMS

- The “Gas Chair” was a unique project in Brazil
- Derived from a broad understanding of “cultural barriers” slowing down the development of additional gas uses
- Comprehensive and systematic actions with the most adequate messages and languages for each different audience
- Long-term-and-integrated “business-government-university” partnership working together on essential communication efforts to incite the development of gas markets in a country with very low gas tradition.
- The experiences promoted by the “Gas Chair” is described as a blueprint for the promotion of direct uses of gas, beyond gas-to-power, in emerging countries
- “Cultural motion” and changes in energy traditions and habits are required to favor the adoption of gas by the final consumers

The “GAS CHAIR” Experience - METHODS AND RESULTS

- Here we present a brief revision of the most outstanding initiatives promoted by the Gas Chair from 2006 to 2013.
- The comprehensive and chronological list of activities can be found at the Gas Chair website (unfortunately mostly in Portuguese):

catedradogas.iee.usp.br/atividade_ant.asp

The “GAS CHAIR” Experience - METHODS AND RESULTS

■ THE GAS LIBRARY

- Comgas having formerly hold the only national library focused on natural gas, which was demobilized after privatization.
- The initial goal was to rebuild a world-class gas-dedicated bibliographical hub at USP. Alternatively, preparing, donating and distributing to libraries basic “Sets of seminal books on natural gas”.
- Financial resources fell far short to enable those initial plans.

■ Adopted solutions:

- Preparing and donating to public libraries (from Technical Schools) “Standards (ABNT) Sets” (focused on residential and commercial gas installations in Brazil);
- Promotion of domestic publications;
- Digital references of (MSc and PhD thesis).



The “GAS CHAIR” Experience - METHODS AND RESULTS

■ TECHNICAL VISITS

- Promoting technical visits to outstanding gas using facilities in places such as Shopping Malls and Commercial Buildings (ex.: gas-fired cogeneration and/or air-cooling systems).
- People including potential users, academics and potential operators are always keen to see real operational units and discuss pros and cons with existing operators and users.
- Technical visits always followed by USP Faculties to respond to specific questions.



CONVITE

A CÂTEDRA DO GÁS convida para visita técnica à Planta de Cogeração a Gás Natural com Chiller de Absorção da ECOGEN, no Shopping Taboão, e ao seu Centro de Operação.

Local: Rodovia Régis Bittencourt, 2.643

Taboão da Serra (SP)

Data: 04/04/2013 (quinta-feira), das 14 às 17 horas.

INSCRIÇÕES GRÁTIS | CLIQUE AQUI

Mais informações, no tel.: (11) 5531-0847 (c/ Cristina)

As inscrições serão efetuadas por ordem de chegada.

Inscriva-se até 28/03
VAGAS LIMITADAS

Caso não receba retorno à sua solicitação, contatar (11) 5531-0847



The “GAS CHAIR” Experience - METHODS AND RESULTS



■ DIVERSIFIED TRAINING

ENCONTRO TÉCNICO DE INSTALAÇÕES DE GASES COMBUSTÍVEIS

3 de junho de 2008

INSCRIÇÃO
ISENTA
DE CUSTO
CLIQUE AQUI

OBJETIVOS

- Estimular a formação de profissionais para atuar na área de gases combustíveis.
- Contribuir para complementar as atividades já desenvolvidas nas disciplinas afins.
- Entrega da coletânea das normas abaixo relacionadas:

- NBR 15526: Redes de distribuição interna para gases combustíveis em instalações residenciais e comerciais - Projeto e execução
- NBR 15528: Redes de distribuição para gases combustíveis em instalações comerciais e industriais - Projeto e execução
- NBR 13103: Instalação de aparelhos a gás para uso residencial - Requisitos dos ambientes
- NBR 12313: Sistema de combustível - Controle e segurança para utilização de gases combustíveis em processos de baixa e alta temperatura

PÚBLICO-ALVO

Profissionais do setor de gases combustíveis, da área pública e privada, especialmente das áreas de engenharia de construção civil, arquitetura e projetos, e tecnólogos.

COORDENAÇÃO TÉCNICA

Murilo Tadeu Werneck Fagá (Coordenador da Cátedra do Gás - Instituto de Eletrotécnica e Energia da USP)

PROGRAMAÇÃO

Formação de profissionais para os novos desafios tecnológicos que representa o uso de gases combustíveis como energia final nas edificações.

14h00 Credenciamento

14h30 José Carlos Broisler Oliver (Diretor de Operações da Comgás)

15h00 Edmilson dos Santos Moutinho / Murilo Tadeu Werneck Fagá (Coord. da Cátedra do Gás - IEE/USP)

15h30 Valdemar Antônio Demétrio (Presidente em exercício do CREA-SP)

15h50 João Batista Corrêa Nery (Superint. do Comitê Brasileiro de Gases Combustíveis - ABNT/CB-09)

16h10 Eduardo Ioshimoto (Departamento de Engenharia de Construção Civil - Escola Politécnica da USP)

16h30 Entrega das coletâneas aos representantes das Escolas

16h50 Encerramento

INFORMAÇÕES

LOCAL: Centro Operacional da Região Metropolitana de São Paulo da Comgás.

END.: R. Capitão Faustino de Lima, 134 (Metrô D. Pedro II), Brás, São Paulo (SP)

TEL.: (11) 5531-0847 / 5531-4944 (c/ Wilma) **VEJA AQUI COMO CHEGAR**

APOIADORES



AGRADECIMENTOS



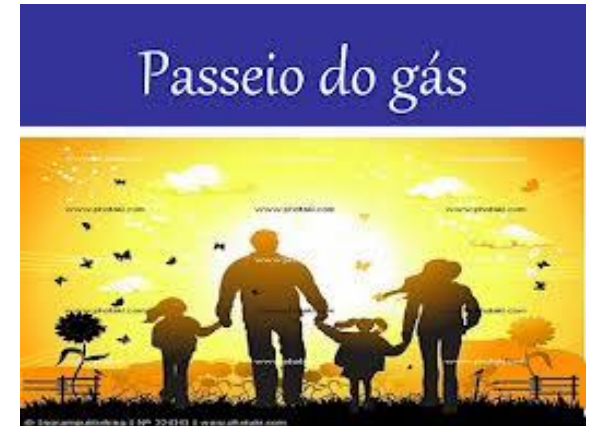
- Promoting free training activities to different audiences and with different scopes.
- **Training to NG Sales Promoters** – Highlighting gas-related positive aspects that might be used by Marketing Promoters to seduce final consumers on the best practices and highest qualities of natural gas relative to other energy sources.
- **Technical meetings in frontier cities** with diversified groups of interests and discussing the pros and cons of a Gas Civilization and the challenges to be surpassed in Brazil.



The “GAS CHAIR” Experience - METHODS AND RESULTS

■ THE NATURAL GAS RIDE

- Ludic presentations focused on the youth (adolescence) ...
- USP Faculties present the fundamental of the natural gas industry and gas-related challenges for the future generations.
- Lectures brought to Public (peripheral) and Private (outstanding) high schools in Sao Paulo.



The “GAS CHAIR” Experience - METHODS AND RESULTS

■ THEMATIC SCIENTIFIC MEETINGS

- Mobilizing high schools to organize Thematic Scientific Meeting and Exhibition highlighting energy (as a whole) and gas-related issues (in particular).
- Marina's Prize



The “GAS CHAIR” Experience - METHODS AND RESULTS

■ CONGRESS AND SEMINARS PROMOTION

- Organizing domestic and international congresses, seminars and workshops with specific gas-related focuses.
- Academic support for technical lobbying favoring the promotion of direct final uses of gas.
- Comparative analysis and international road mapping in leading gas-related topics.



GÁS NATURAL
NO TRANSPORTE PÚBLICO
Opção energética e sustentável para as cidades brasileiras

CLIQUE AQUI | Confira o calendário de programação e inscrições

A Câmara de Gás do SP - USP convida você para participar do evento "Gás Natural no Transporte Público: Opção Energética e Sustentável para as Cidades Brasileiras".

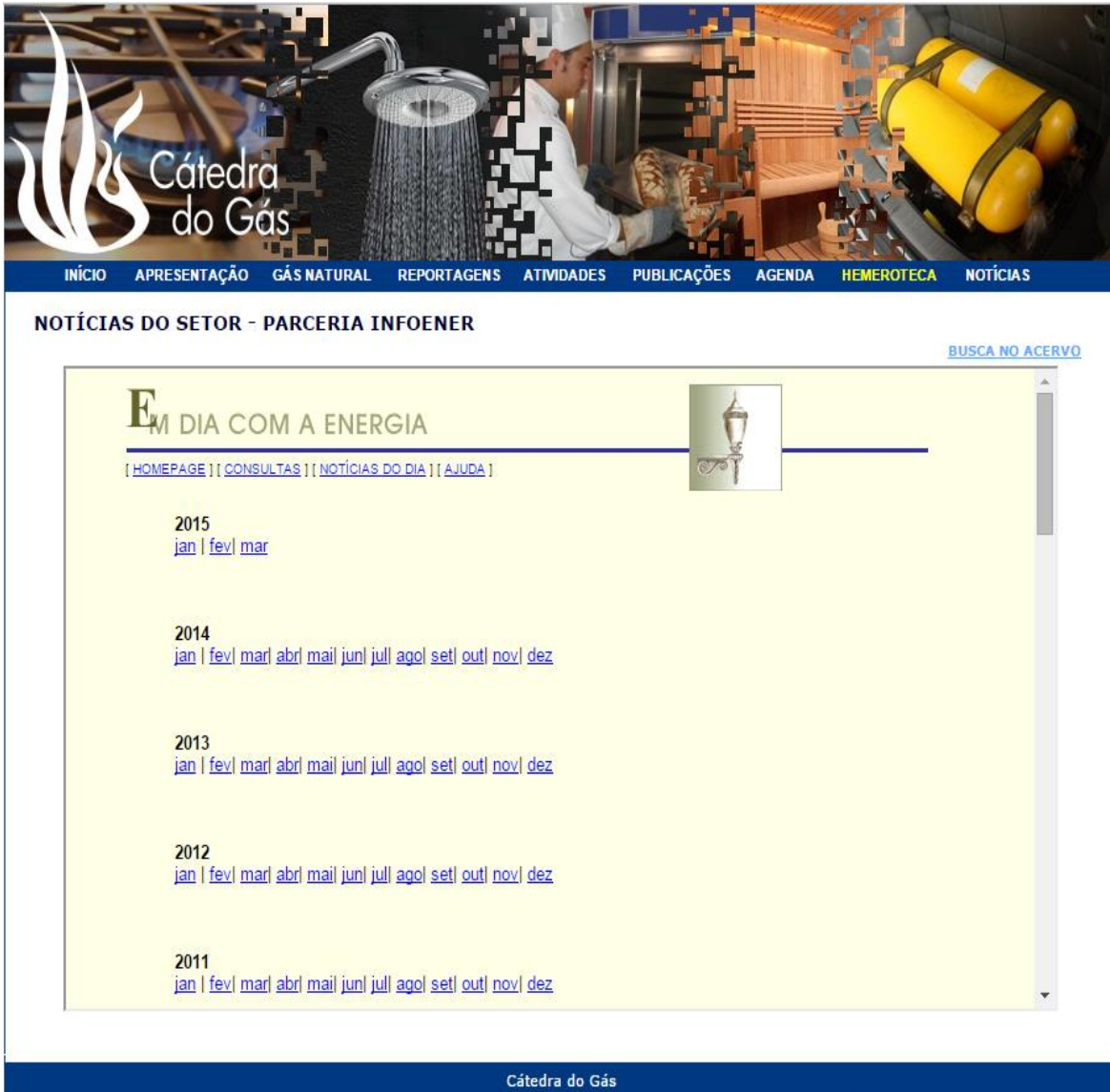
Venha conhecer como o Gás Natural pode ser uma opção no transporte público urbano por meio de experiências internacionais e casos de sucesso.

Vamos debater entre especialistas locais as possibilidades do uso de Gás Natural no Estado de São Paulo através de painéis, debates, debates e laboratórios.

Data: 03 de outubro
Horário: das 7h às 17h
Local: Golden Tower São Paulo Hotel
Endereço: Rua Desembargador Luís Antônio Franco, 349 - Pinheiros

Patrocinadores: Apoio Institucional:

The “GAS CHAIR” Experience - METHODS AND RESULTS



The screenshot displays the website for 'Cátedra do Gás'. At the top, there is a navigation menu with the following items: INÍCIO, APRESENTAÇÃO, GÁS NATURAL, REPORTAGENS, ATIVIDADES, PUBLICAÇÕES, AGENDA, HEMEROTECA, and NOTÍCIAS. Below the menu, the page is titled 'NOTÍCIAS DO SETOR - PARCERIA INFOENER'. A search bar labeled 'BUSCA NO ACERVO' is located in the top right corner. The main content area features a large heading 'EM DIA COM A ENERGIA' and a small image of a gas lamp. Below this, there are navigation links: [HOME PAGE] [CONSULTAS] [NOTÍCIAS DO DIA] [AJUDA]. The page lists news by year, with each year having a list of months: 2015 (jan | fev | mar), 2014 (jan | fev | mar | abr | mai | jun | jul | ago | set | out | nov | dez), 2013 (jan | fev | mar | abr | mai | jun | jul | ago | set | out | nov | dez), 2012 (jan | fev | mar | abr | mai | jun | jul | ago | set | out | nov | dez), and 2011 (jan | fev | mar | abr | mai | jun | jul | ago | set | out | nov | dez). The footer of the page reads 'Cátedra do Gás'.

■ NEWSPAPER LIBRARY

- Collection of News focused on energy and natural gas.
- In partnership with USP INFOENER.

- SUMMARY & CONCLUSIONS

The “GAS CHAIR” Experience - SUMMARY & CONCLUSIONS

- The “Gas Chair” was a unique project trying to tackle the “cultural barriers” that may cause difficulties for the development of additional uses of gas in the State of Sao Paulo, Brazil.
- The project was not renewed in 2014 and 2015.
- New R&D priorities received more support from Comgas and Arsesp.
- No clear measurement of activities impacts on promoting the expansion of local gas markets as well as the effectiveness of the Gas Chair in implementing the “Gas Civilization” in the State of Sao Paulo, Brazil.

The “GAS CHAIR” Experience - SUMMARY & CONCLUSIONS

- YET ...
- Since 2014 –Natural gas has been receiving much less attention ...
- NG is much less spoken and has much less power to mobilize segments of society to discuss specific issues
- The Gas Chair was an effective instrument for the gas industry to dialogue with local society

The “GAS CHAIR” Experience - SUMMARY & CONCLUSIONS

- Brazil and the state of Sao Paulo are still far away from consolidating a true Gas Civilization
- “Cultural barriers” still need to be dismantled.
- As a road mapping for other emerging countries, the Brazilian Gas Chair experience is a real Case Study of diversified initiatives to build up or expand the Gas Civilization ... GOING BEYOND THE GAS-TO-POWER MODEL.
- NG will pave a more sustainable energy world by substituting bad uses of electricity rather than helping to produce more unsustainable uses of electricity.

■ THANK YOU

Edmilson MOUTINHO DOS SANTOS
edsantos@iee.usp.br