

IAGT 2010 FALL COURSE

October 2010

Hamilton, Ontario

Jim McArthur

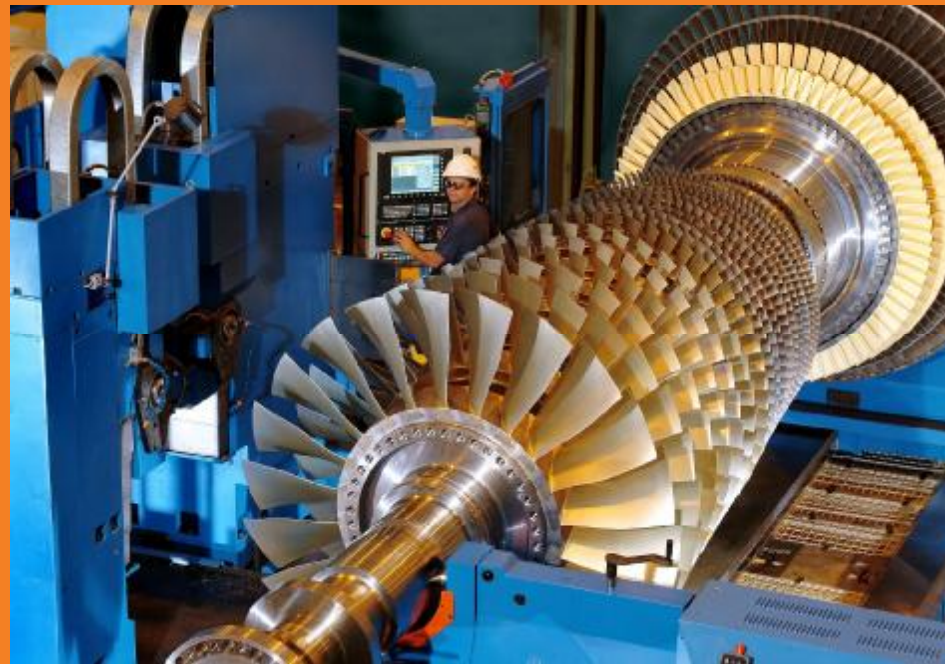
Vice President, Operations - IST

Chairman, IAGT Committee

Overview

- IAGT Introduction
- Canadian Gas Turbine History
- Current Market Trends
- Upcoming Events
- Guidelines

IAGT Introduction



IAGT Introduction

- IAGT (Industrial Application of Gas Turbines)
- Provides a Canadian forum for operators and manufacturers of gas turbines
- Formed in 1973 (37 years ago) with first symposium held in Oct. 1974 (Edmonton, Alberta)
- Hosted by NRC, followed by CGA (1990) and today both

IAGT Introduction (cont'd)

- Initial Topics included Inlet Icing Problems, Performance Testing, Compressor Cleaning, Trend Monitoring, Lube Oil
- Today's topics are GT Applications, GT Advancements, Cogeneration, Fuel Flexibility, Emissions, Life Cycle Cost

IAGT Committee


- Consists of a blend of users and manufacturers
- Many of the committee are here this week
- I encourage you to make use of this committee for any questions you may have, this week and into the future

Visit us at www.iagtcommittee.com

Canadian Gas Turbine History



Canadian Gas Turbine History



The screenshot shows the IAGT website interface. At the top left is the IAGT logo featuring a red maple leaf inside a turbine wheel. To its right is a large banner image of a gas turbine engine with the text "INDUSTRIAL APPLICATION OF GAS TURBINES". Below the banner is a navigation menu with buttons for Home, Links, Papers, Canadian Gas Turbine Industry, and Contact Us. The main content area is divided into two columns. The left column, titled "Latest News", contains three items: "IAGT Fall 2010 Course" (with sub-links for Registration Details and Hotel Booking), "IAGT 2011 Symposium" (with sub-links for abstracts and sponsorship), and "18th Symposium of the IAGT" (with sub-links for the 2009 program and delegate roster). The right column, titled "Canadian Gas Turbine Industry", contains a list of video links, including "From Thin Air video" (143MB - .wmv) and another video (21MB - .mov). A black arrow points from the "From Thin Air video" link to the bottom right corner of the slide.

Market Trends



Near Future – Gas Supply

- Natural Gas Prices (Calgary Herald)
 - Canadian prices will also slide, with Alberta natural gas averaging \$4.24 per thousand cubic feet next year, from a previous estimate of \$5.38 per mcf
- Shale Gas (Calgary Herald)
 - North American markets have been flooded with shale gas volumes as producers step up drilling activity south of the border.

Not Too Distant Future

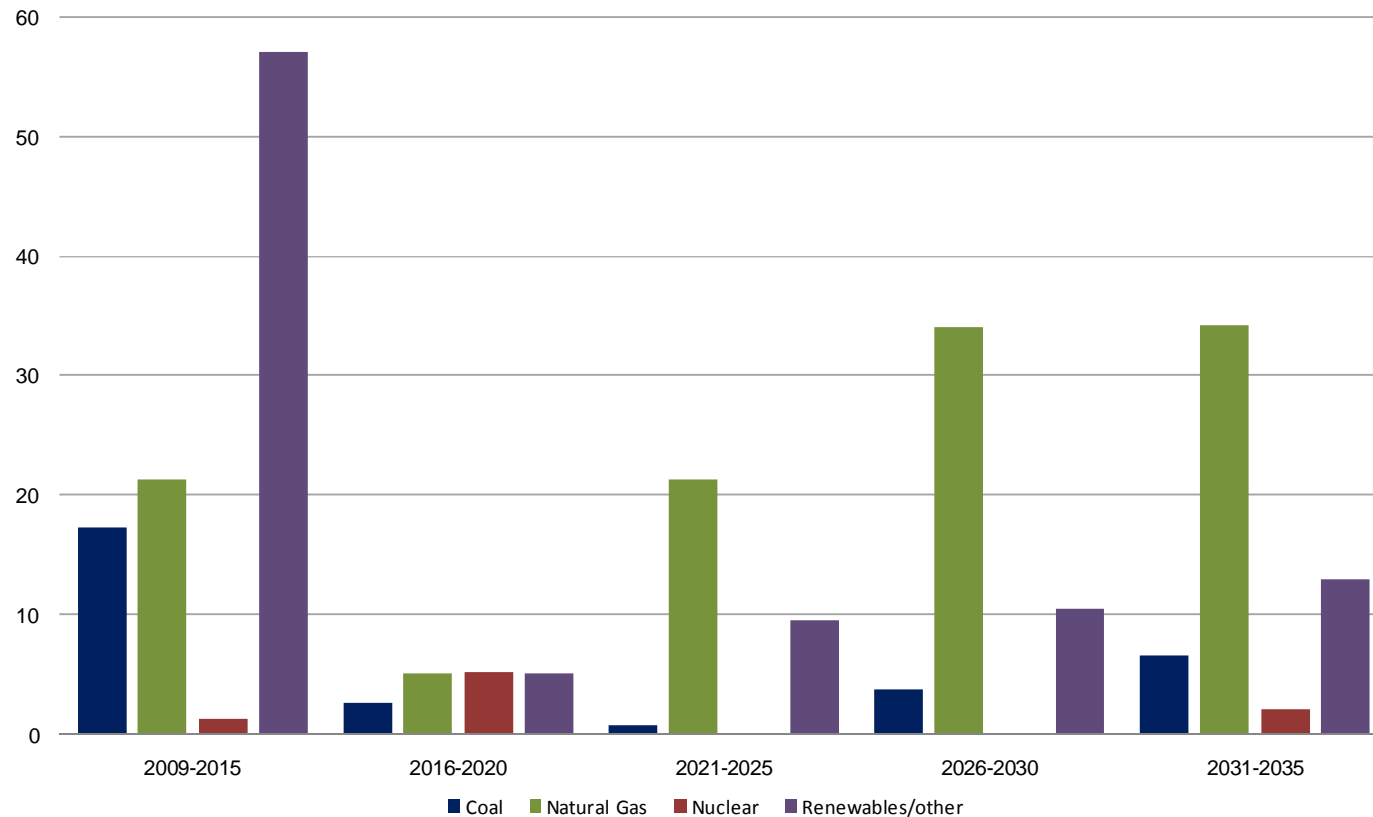
- Continuous Improvement (Frost and Sullivan)
 - It is imperative that the gas turbine OEMs focus on continuous technology improvements as that is a key factor in helping them achieve a higher growth in an environment that is bound to get increasingly intense with the high price of natural gas and the increased focus on competing fuels and technologies.

Distant Future

- Capacity Additions (2010 Annual Energy Outlook)

Electricity generation capacity additions by fuel type, 2009-2035

gigawatts



Upcoming Events



Upcoming IAGT Events

- 19th Symposium in 2011



For registration and sponsorship information OR to submit an abstract visit us at:
www.iagtcommittee.com OR contact us at: help@canavents.com



Guidelines and Giveaways

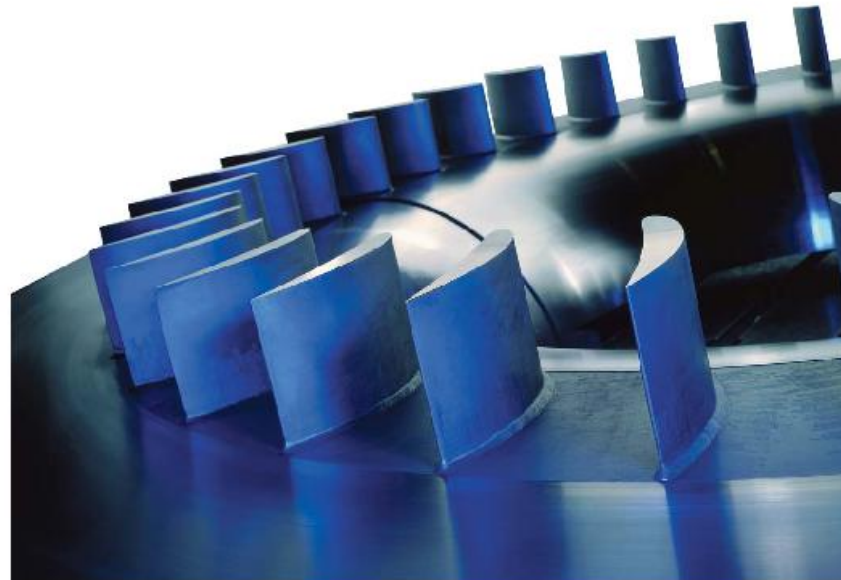


Dodge Viper



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Speaker Thank You

*Thank you very much
for your support.*

The Organizers of the IAGT 2010 Fall Course

wish to thank you for your participation.

As a gesture of thanks we have made a donation

on behalf of all of our 2010 speakers to the

SickKids Foundation.

- Please set your cell phones to silent/vibrate.



Evaluation Forms



Evaluation Form

IAGT 2010 FALL COURSE

Rate the following sessions and provide any comments at the bottom. All evaluation forms should be dropped off at the registration desk upon your departure. We will be utilizing your responses to help develop the agenda for the next course.

	Excellent	Good	Fair	Poor
Opening Remarks and Welcome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Session #1 - Introduction to Gas Turbines, Cogeneration and Combined Cycle Application	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Session #2 - Gas Turbine Designs & Systems Applications (a Canadian Perspective)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Session #3 - Advancements in Gas Turbine Repair Technology Resulting from Gas Turbine Design Evolution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Session #4 - Cogeneration Case Study: Cornell University - Combined Heat & Power Project	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Liburd Turbine Services Tour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Siemens Energy Tour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Session #5 - Fuel Flexibility Effects on Gas Turbine Operation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Session #6 - Gas Turbine Emissions and Regulatory Developments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Session #7 - Emission Reduction Case Study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Session #8 - Life Cycle Cost Analysis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments:

Speakers and topics you would like to see in the future:

Thank you for joining
us, I hope you find it
meets your
expectations!