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**SMS Energy-Engineering Inc.**

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July 1, 2004

Dear Sir/Madame:

Thank you for your interest in SMS Energy-Engineering. Attached you will find some information about our company together with a brief project experience and qualification. We trust you will find the attached in order and to your satisfaction.

If you require further assistance or would like more information, please feel free to contact us at any time. You may use our web-based *Feed Back* form or simply drop us an email at [info@smsenergy-engineering.com](mailto:info@smsenergy-engineering.com)

Thank you and look forward to hearing from you.

Yours Truly,  
SMS Energy-Engineering Inc.

## **1.0 The Company – SMS Energy-Engineering Inc.**

### **1.1 INTRODUCTION**

SMS Energy-Engineering Inc. (SMS) is a Canadian firm that specializes in all areas related to the engineering & management of power generation and cogeneration projects. From its head office in Oakville, Ontario, the company provides a wide range of technical expertise and consulting services to independent power producers, electric utilities, industrial & institutional users, financial institutions and law firms in Canada, USA, Mexico, China, Japan, Thailand, Malaysia and several other countries in the world.

SMS provides high quality and cost-effective engineering solutions leveraging on its unique management structure combined with access to over forty (40) professionals that provide a great depth of resources. For over ten (10) years, our clients received a personalized level of service regardless of project magnitude or project location.

### **1.2 SERVICES, EXPERIENCE AND CAPABILITIES**

All technical services are provided by highly experienced personnel with extensive involvement in the design and construction of power generation and cogeneration facilities in Canada and overseas. The majority of these professionals have acquired their expertise while working with the world's largest engineering firms and undertaking project assignments ranging from 4 to over 2,000 MW. In addition to personnel expertise, SMS is fully equipped with the most sophisticated engineering tools and programs that help us develop the most effective solution for each project.

The company services are highlighted in the enclosed brochure. Section 2.0 of this document captures our project experience relevant to plant performance and/or cycle optimization.

# ▶ Energy

## **SMS ENERGY-ENGINEERING - SMS**

is a multi-discipline engineering firm specializing in all areas related to power generation and cogeneration industry. We serve electrical utilities, private power developers, financial institutions, resource industries, and institutional users. We have the ability to assist you with your energy project from the development stage right through to plant commissioning and commercial operation.

Our Senior Associates have access to a large number of multi-discipline Associates with extensive experience in their area of expertise. These highly competent professionals make SMS uniquely structured to deliver professional expertise and flexibility for an Engineering Team that fits with your project and people.

The benefit of SMS' structure and approach is projects engineered with the highest degree of technical competence and in a cost-effective manner.

**The** worldwide restructuring of the electricity sector is dramatically changing our customers' needs and expectations.

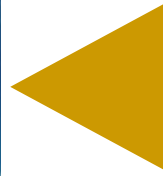
Technical skills, innovation and imagination will all be necessary to stay ahead in this rapidly changing industry. At SMS Energy-Engineering we are committed to stay ahead in the marketplace. We strive to provide our clients with the most professional engineering services available.

Our continuing success over the last century is a tribute to the right people whom we work with and our dedication to customer-oriented teamwork approach. Our proven performance and customer satisfaction have kept clients coming back to challenge us again and again.

**We are ready, today, for your challenge on any project, any size and anywhere in the world.**

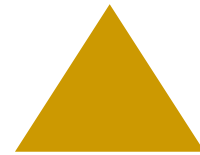


# Engineering ◀



## Expertise

- ◆ Cogeneration Systems
- ◆ Combined Cycle Plants
- ◆ Fossil-Fired Thermal Plants
- ◆ Energy from Waste & Biomass
- ◆ District Heating Plants
- ◆ Cycle Design and Optimization
- ◆ Plant Performance Modeling
- ◆ HV Substations
- ◆ Distribution and Transmission



## Excellence

## Power Plants

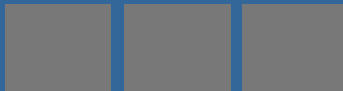
SMS provides a range of technical services that can save you money and improve operations and maintenance.

- ▣ Contracting Strategy
- ▣ Load Shifting Program
- ▣ Billing Verification
- ▣ IMO Stakeholding
- ▣ On-Line Balance Sheet
- ▣ Thermodynamic Modeling / Evaluation
- ▣ On-Line Performance Monitoring
- ▣ Off-Line Performance Optimization
- ▣ What-If-Scenarios
- ▣ Steam-Power Ratios
- ▣ Training

SMS has access to excellent technical resources consisting of professional engineers and designers all of whom have extensive experience in the design and operation of thermal power, combined cycle power and cogeneration facilities.

The majority of these professionals acquired their skills and expertise while engineering and managing power projects ranging from 4 to over 2000 MW for some of the world's largest engineering corporations.

In addition to this core of experience, SMS is fully equipped with industry's most sophisticated engineering tools and state-of-the-art software programs.



## Power Projects

SMS provides a range of engineering services that can assist in development & implementation of your projects.

- ▣ Feasibility Studies
- ▣ Front-End Engineering
- ▣ Plant Cycle Selection
- ▣ Plant Cycle Optimization
- ▣ Equipment Specification
- ▣ Capital Cost Estimates
- ▣ Economic Analyses
- ▣ Energy Audits
- ▣ Due Diligence
- ▣ Owner's Engineer
- ▣ Third-Party Reviewer



## **2.0 Project Experience – Performance/Optimization**

### **2.1 INTRODUCTION**

SMS personnel have extensive and multi-discipline experience in serving the needs of clients in the field of steam and power generation engineering. On the strength of this experience, we have and continue to provide services at high professional quality and at excellent value for money. These services cover a wide spectrum ranging from feasibility studies, front-end engineering, to plant performance testing, monitoring and optimization.

### **2.2 TYPICAL PROJECTS**

This section provides a selective list of projects involving performance testing, plant optimization and/or cycle design that SMS personnel have undertaken in the last few years.

- ▶ Cavalier Power Station, 110 MW, combined cycle plant, Canada
- ▶ Nusantara Power Plant, 350 MW, combined cycle plant, Malaysia
- ▶ Balzac Power Station, 110 MW, combined cycle power plant, Canada
- ▶ Yangon District Heating Project, 3 x 1.5 MW, combustion engines with hot water heating, Myanmar (formerly Burma)
- ▶ Northland Power Project, 350 MW, combined cycle cogen plant, Canada
- ▶ Cardinal Sithe Power Project, 150 MW, combined cycle cogeneration plant, Canada
- ▶ Brockwest Power Plant, 25 MW, landfill-fired thermal plant, Canada
- ▶ Bruce Cogeneration Project, 700 MW, combined cycle plant, Canada

- ▶ Kingston District Energy Project, 150 MW combined cycle cogeneration plant, Canada
- ▶ Tembec Cogen Project, 140 MW, combined cycle cogen plant, Canada
- ▶ Orenda Bio-Fuel Project, 2.5 MW, combustion turbine, Canada
- ▶ AES Kingston Cogeneration, 120 MW combined cycle cogeneration plant, Canada
- ▶ Kapuskasing Power Plant, 60 MW, combined cycle plant, Canada
- ▶ Jamshoro (Phase II) Combined Cycle Project, 840 MW, Pakistan
- ▶ Phetburi IPP, 2 x 700 MW coal-fired thermal plant, Thailand
- ▶ SNC/GE Project , 150 MW, combined cycle plant, Mexico
- ▶ Iroquois Falls, 110 MW, combined cycle cogeneration plant, Canada
- ▶ CP Forest, 100 MW, combined cycle cogeneration plant, Canada
- ▶ Saskoil Cogen Project, 10 MW, "cheng" cycle plant, Canada
- ▶ NCPO Cogen Project, 25 MW, cogeneration plant, Canada
- ▶ Port Klang Power Project , 1000 MW, cogeneration plant, Malaysia
- ▶ TP Cogeneration Project, 120 MW, combined cycle cogen plant, Canada
- ▶ TP Cogeneration Project, 105 MW, combined cycle cogen plant with a backpressure steam turbine and an 110,000 lb/hr bark boiler, Canada
- ▶ Qurayyah Power Plant (4 x 600 MW), gas/oil-fired thermal and desalination plant, KSA

- ▶ Lakeview Generating Station, 350 MW Units 4 & 3, coal-fired thermal plant, Canada
- ▶ Termovalle Power Plant, 195 MW, combined cycle plant, Colombia
- ▶ Java Power Station, 415 MW, coal-fired power plant, Indonesia
- ▶ Ghazlan Power Plant (4 x 400 MW), gas/oil-fired thermal and desalination plant, KSA
- ▶ University of Windsor, 4 MW, combustion turbine cogen plant, Canada
- ▶ Tembec Bark Burning Boiler, 9 MW, bark-fired thermal backpressure plant, Canada