



## FLUIDIZED BED COMBUSTION/ GASIFICATION

### CLEAN ENERGY TECHNOLOGIES

## MODELLING, SIMULATION AND OPTIMIZATION

*The CANMET Energy Technology Centre-Ottawa (CETC-Ottawa) has strong expertise in modelling, process simulation and optimization. We are dedicated to providing services with high professionalism to satisfy the needs of our clients and partners.*

Our scope of services include (but is not limited to):

- Process development and scale-up
- Rigorous mass and energy balances
- Reliable estimation of capital investment and operational costs
- Evaluation of new processes
- Analysis/modification of existing processes
- Process integration
- Sensitivity analyses for determination of key variables for process control

The above activities have been a crucial part in our work for:


- Feasibility studies
- Proposal evaluation/selection
- Consultancy assistance


We use Aspen Plus mainly for process simulation and Aspen Icarus for equipment sizing and economic evaluation. Our commitment to first-class support for our clients in both the private and public sectors is backed by the extensive knowledge and long-term experience of a dedicated team.

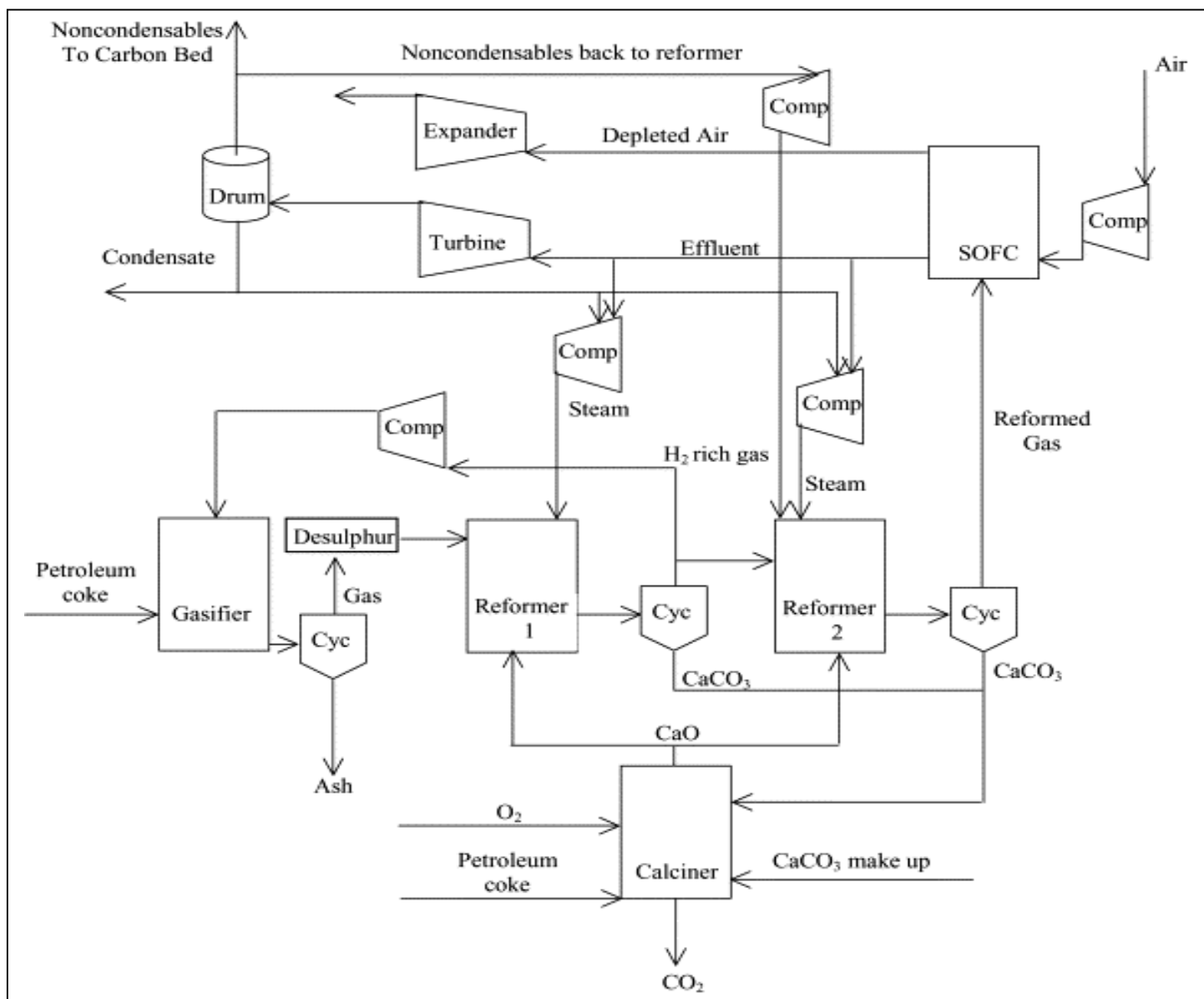
The attached diagram, pertaining to zero-emission processes, is an illustration of our work (published in Fuel, 83(2004) 1341-1348).

### **Your Invitation to Work with Us**

We are interested in collaborating with you. Please contact the Business Office to discuss your particular needs.

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*A modified zero-emission process for power generation, based on gasification of petroleum coke (also applicable to high-carbon coals), which enables firing low-cost, high-sulphur petroleum coke and capturing CO<sub>2</sub> and sulphur with high energy efficiency*

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