Proposal for the Supply of One Back-Pressure Steam turbine Generator set

Proposal to Wausau-Mosinee Papermill Company

Month June , 2001

Turbosteam Reference 7147.05

TURBO STEAM

Introduction

We are pleased to submit this proposal for a 2,821 kW backpressure turbine generator to Wausau-Mosinee Papermill Company.

Our understanding of your situation

Turbosteam will be designing and manufacturing a steam backpressure system capable of handling 400 psig inlet @ 625 degree Farenheit and 125 psig exhaust steam. The flow that Waussau's boiler will be providing is 140,000 pph. It is understood that these conditions will be provided at the turbine inlet.

The Opportunity

This proposal describes Turbosteam's unique approach to your needs. The solution we propose will provide you with the following:

- 2821 kW of on-site electric power generation, thus reducing your demand from your local utility
- $372,652 per year in savings on your energy bills
- A project with a 36%return on investment over a period of 20 years – in other words, all of the capital investment required by this project will be paid off within 3 years of installation.
- A system that simultaneously adds money to your bottom line and improves the environment, by eliminating the emissions of 4,713 tons of CO_2/year, 42 tons of NOx/year and 23 tons of SOx/year.

Why Turbosteam?

Turbosteam Corporation is the world's largest dedicated supplier of packaged backpressure steam turbine-generators. For 16 years, we have provided over 140 customers with packaged systems that convert existing steam pressure drops into value.

Previous projects that may be of note to you are:

- 2660 kW system for a Backpressure system manufactured for Primex in South America. Specifications are 420 psig in @575 F, 15 psig exhaust and 62,000 pph.
- 2733 kWe backpressure system designed and manufactured for Trigen Saint Louis This system is used in a combined cycle with Solar turbines. Specifications are 600 psig @ 750 F, 165 psig exhaust and 100,000 pph.

Cost Summary

Project Costs

Base system cost:	$789,800
Freight:	$2,000
Optional components cost:	
Piping Design Engineering	*$12,500*
Automatic on/off handvalves	*$10,400*
Start-up Costs at firm fixed price	$30,000*
Spares	$32,258
2 year long term service agreement	$42,225.12
Deduct for standard warranty	($18,035)
Total price	$901,148.
Turbosteam deduct	$91,148.12
Final price	$810,000

*The start up will be capped at 30K with the understanding that if a trip is schedule and the site is not ready for work Turbosteam will be allowed to charge Waussau and these charges will not count towards the cap.

Final Price $810,000