

CASE STUDY

REPLACEMENT OF OLD BOILERS WITH ENERGY EFFICIENT BOILERS

at Hanoi Dyeing JSC – Hung Yen Branch

OVERVIEW

SAVINGS:



1,400

TONS OF COAL /YEAR



1,680

MILLION VND/YEAR

CO₂ REDUCTIONS:



EQUIVALENT TO

2,350

TONS/YEAR



BRIEF INTRODUCTION OF HANOI DYEING JSC – HUNG YEN BRANCH

The production plant of Hanoi Dyeing JSC - Hung Yen Branch has been put into operation in Pho Noi B Textile and Garment Industrial Park, Hung Yen Province since 2015. The Company's main products including dyed and printed fabric are not only being widely distributed in the domestic market but also exported to other countries. In the framework of the GEF funded Project “**Promotion of Energy Efficient Industrial Boiler Adoption and Operating Practices in Vietnam**” jointly implemented by the Ministry of Industry and Trade (MOIT) and the United Nations Industrial Development Organization (UNIDO), the national experts conducted an efficiency assessment of the operating steam boilers and thermal oil boiler at the Company in January 2018. Based on the evaluation results and recommendations of experts, the Company's leaders decided to replace the fixed grate steam boilers and thermal oil boiler with energy efficient fluidized bed boilers.

THE FINDINGS OF THE ASSESSMENT

HEAT LOSSES DUE TO FLUE GAS AND
UNBURNT CARBON IN BOTTOM ASH
ARE RELATIVELY HIGH

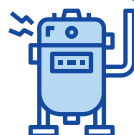
AVERAGE
EFFICIENCY OF
STEAM BOILERS IS
ABOUT 71%



THE BOILERS ARE OPERATED
MANUALLY, SO THE WORKING
CONDITIONS ARE DIFFICULT
TO MEET THE OCCUPATIONAL
HYGIENE REQUIREMENTS



AVERAGE
EFFICIENCY OF
THERMAL OIL BOILER
IS ABOUT 60%



THE FUEL USED IS
LUMP COAL WITH
A HIGH PRICE

IMPLEMENTED SOLUTIONS

REPLACEMENT OF OLD BOILERS WITH ENERGY EFFICIENT BOILERS



Both 4 tph and 6 tph manual operated steam boilers were replaced with a fully automatic 10 tph fluidized bed steam boiler.



The 2 million kcal/hour grate firing thermal oil boiler was replaced with a fully automatic 2.5 million kcal/hour fluidized bed thermal oil boiler.

RESULTS

Efficiency of steam boiler increased by

16.2%

Efficiency of thermal oil boiler increased by

27%



EFFICIENCY OF 10 TPH FLUIDIZED BED STEAM BOILER REACHED

87.2%

(UP 16.2% COMPARED TO THE OLD BOILER)

EFFICIENCY OF 2.5 MILLION KCAL/HOUR FLUIDIZED BED THERMAL OIL BOILER REACHED

87%

(UP 27% COMPARED TO THE OLD BOILER)

AUTOMATIC BOILERS AND THERMAL OIL BOILERS HELP TO IMPROVE WORKING CONDITIONS AND LABOR HYGIENE FOR OPERATORS

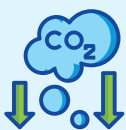
PROMOTION OF ENERGY EFFICIENT INDUSTRIAL BOILER ADOPTION AND OPERATING PRACTICES IN VIETNAM

PROJECT OBJECTIVES



Annual energy savings:

1,955,304
GJ/YEAR



Annual greenhouse gas emission reductions:

183,736
TON OF CO₂EQ/YEAR

BENEFITS FOR BUSINESS PARTICIPANTS



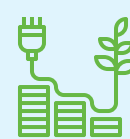
Free training on boiler efficiency evaluation techniques, EE best boiler operating practices and EE boiler manufacturing



Support to access financing sources and incentives for the implementation of EE boiler adoption and manufacturing projects



Technical assistance from international/national experts to implement EE boiler adoption and manufacturing projects



Energy savings, energy cost reductions, Increased competitiveness

CONTACT

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