

The following table is a typical example of operating conditions in a modern power station and clearly shows how the total fuel or B.T.U. value of the coal consumed by the plant is accounted for, viz:—

	Per cent.
Loss of chimney gases (non-preventable).....	24
Condensation in steam pipe to engine (non-preventable)...	2
Friction loss in engine (non-preventable).....	2
Effective horse-power (available for light and power)....	14
Loss in exhaust steam dissipated in circulating water or atmosphere (available for heating purposes).....	58
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Total value of coal supplied to boilers.....	100

It was primarily for the purpose of utilizing the above waste and converting same into a revenue-producing service that the North Battleford Municipal Steam Heating Plant was installed, and since its inception the overall economy of the Power Plant has been enhanced. The heat (latent heat of the steam from the engines) which was formerly dissipated in the circulating water is piped into the heating mains and the revenue therefrom has approximated \$20,000 annually for the municipality and has in addition thereto effected a considerable saving to the consumers and patrons of the plant.

In the opinion of the undersigned if a differential freight tariff was granted by the Board of Railway Commissioners on slack coal which is annually wasted at the mines in colossal quantities, many other municipalities and private power plant owners would be encouraged to use this class of fuel to an extent sufficient to completely eliminate the waste and destruction of same by the mine operators.

Any measures adopted by the Federal Government which may stimulate and encourage the utilization of said by-products of the coal mines will automatically provide additional supplies of the larger sizes of coal for purposes other than the production of steam in Central Stations. Furthermore, the installation of additional Central Heating Plants in the Dominion would save to the community in which same were operated, large quantities of fuel annually now being consumed by individual heating plants of very low efficiency.

Undoubtedly Canada can supply ample fuel to meet her own requirements when the present wasteful methods of utilizing the available supplies of coal are eliminated.

A historical review of the local Municipal Central Heating Plant is enclosed for your perusal.

Any additional information you may require in connection with said utility is available upon request.

Your obedient servant,

(Sgd.) M. D. CADWELL,

*Superintendent of Utilities.*