

**Thermal Energy**

 **Solution Card No.7: Decrease Boiler Consumption using solar water heating**

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| **Solution Card No.7: Decrease Boiler Consumption using solar water heating** |
| **Inputs** |
| Factory | \*\*\* |
| Source of Heating | Natural Gas / Diesel / LPG |
| No. Of Units | 1 |
| **Assumptions** |
| Water Temperature | \*\*\* °C |
| Exchange Rate | 16 EGP/USD |
| Consumption Profile | \*\*\* hr/day | \*\*\* days/year |
| **Constraints** |
| Fuel prices | \*\*\* EGP/MBTU (2020/2021) |
| **Proposed Solution** |
| Description  | Installing new solar system |
| Preheated Water Flow Rate | \*\*\* m3/day |
| Preheated Water Temperature | \*\*\* °C |
| Total Area Required |  \*\*\* m2 (New)  |
| Annual Energy Saving | \*\*\* kWh (\*\*\* MBTU) |
| **Economic Features** |
| Average CAPEX | EGP \*\*\* |
| OPEX | Low |
| Annual Savings | EGP \*\*\* |
| Payback Period | \*\*\* year |
| Lifetime | 20 years |
| Annual CO2 Reduction | \*\*\* tCO2e |