

## Summary of study: GHP for textile industry: Unit - 1

**Industry** : Textiles

**Unit profile** : A textile industry located in Pandesara, Surat (Gujarat) engaged in production of textile products

**Technology** : Gas heat pump (GHP)

**Application** : Replacement of air cooling system with GHP

**Year of investigation** : 2011

**Key features:**

- Existing system : Packaged air cooling systems (16.5 TR X 2 units + 17 TR X 1 unit)
- Proposed system : 15.9 TR X 3 units of GHP



**Energy and cost saving**

Details	Unit	Existing System (air cooling systems) (1)	Proposed System (GHPs) (2)	Reduction (1) – (2)
Energy consumption	Mil kcal/year	2302	1798	504
Energy costs	Rs/year	3,360,000	2,909,000	451,000
CO <sub>2</sub> emissions	t-CO <sub>2</sub> /year	510	401	109
Electricity cost	Rs/kWh	5.62		
Natural gas cost	Rs/SCM	29.21		

**Note:**

This report is an example for investigating the potential of application of Japanese low carbon technology (LCT) in Indian industries. GHP is the LCT which can generate greater benefits for air conditioning applications using waste heat source.