Our Journey at ACC Thondebavi Cement Works since Inception

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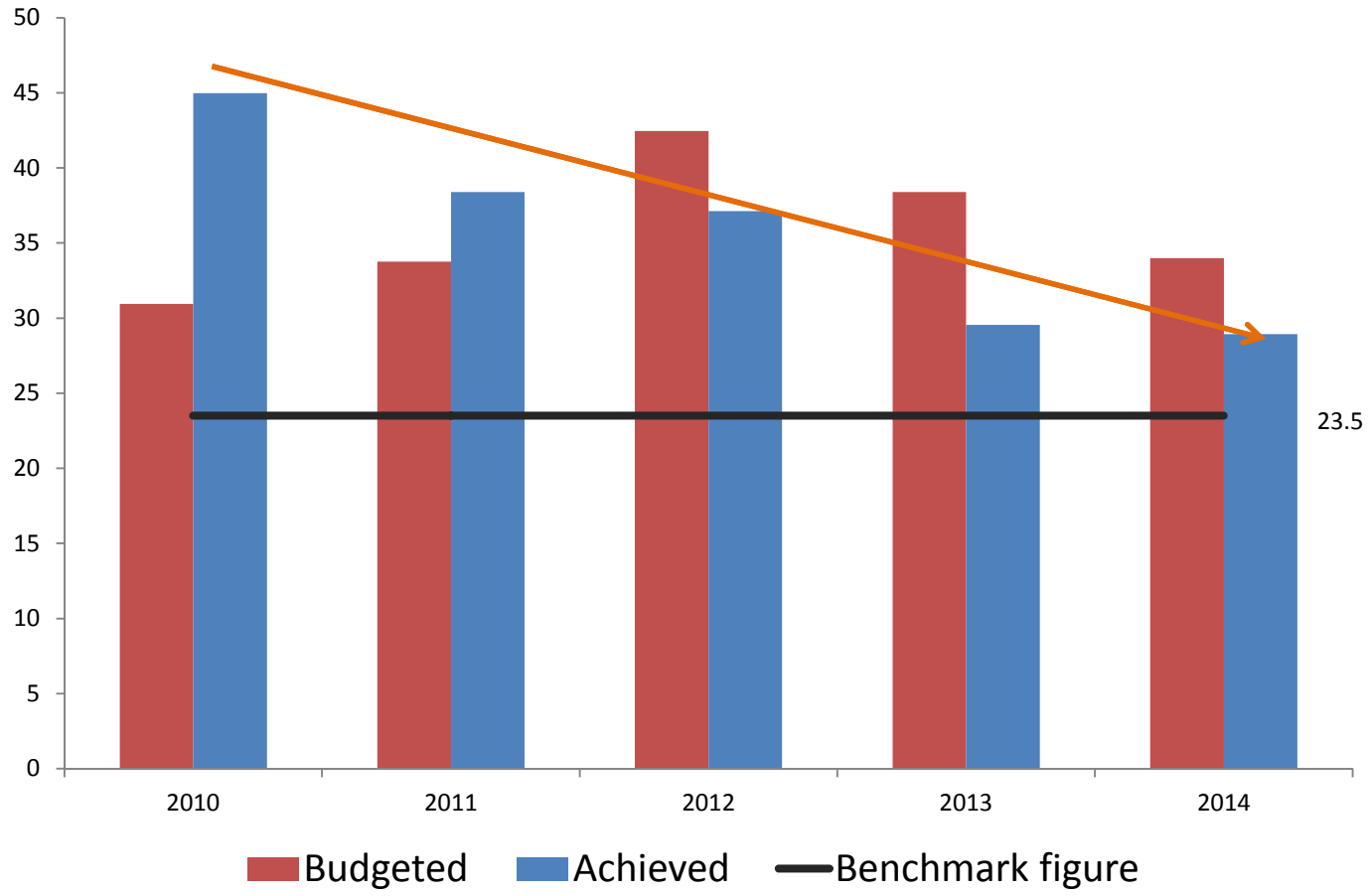
Contents

- Energy
- Water
- Renewable Energy, GHG Emissions
- Waste Management, Material conservation
- Green Supply Chain, Product Stewardship
- Life Cycle assessment and other initiatives

Energy

- Specific Energy Consumption Trend:



Energy

Initiatives taken to reach to this level:
This journey of reduction of 14.62 kwh/T of Cement could be achieved through small initiatives taken by the operations team as well as by way of having small CAPEX to augment various processes.

- Plant developed an Energy Policy to guide all stakeholders towards this journey
- Formation of energy circles
- Detailed Energy measurement and monitoring system
- Section wise energy review and brainstorming
- Shift wise competition on specific energy driving innovation & teamwork
- Introduction of particle size distribution analyzer for optimum grinding resulting in optimum usage of specific energy
- Installation of VFDs for Fans to optimize energy consumption in line with variation of process parameters
- Optimizing Mill output, to operate always at peak throughput rate to have better specific energy consumption
- Changing the voltage of Distribution Transformers from 440V to 415V thus reducing Power by 6%.

Energy

Initiatives taken to reach to this level: (contd….)

- Wagon tippler modification to reduce the unloading time
- Economic usage of power source through IEX and TOD Scheme
- Change of Connection from Delta to Star for Various under loaded drives
- Optimization of process interlock to reduce idle running of Bag house Transport group during Mill Heat up.
- Installed Forced Oil Lubrication system to reduce frictional lossess
- Installation of 50 LED Lamps to replace conventional / CFL lamps

Thondebhavi Won National Energy Conservation Award 2012

Continuous efforts to reduce the energy consumption gave us the recognition in the national platform....

Water

- Developed plant specific water policy
- Display of water policy in local languages
- Team constituted for focus on Water Management
- Installed water metering system at all critical points to monitor
- Elimination of cooling water usage in VRM through innovative measures and optimization of process thus preserving critical natural resource in a semi arid region which receives less rain fall and have low ground water level.
- Reduction of daily water consumption from 36500 ltrs in 2012 to 9823 ltrs in 2013 through various awareness programs among the employees
- Water harvesting through water harvesting ponds
- Efforts are on sustainable ground water management beyond fence
- Replacement of water intense plants with local species which requires less water

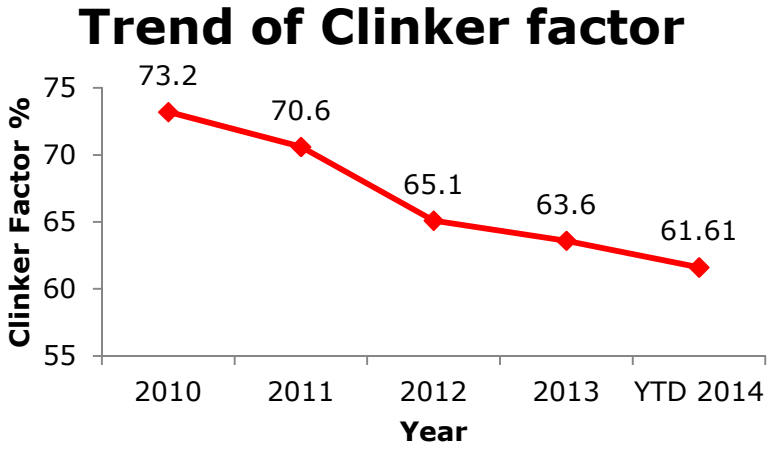
Renewable Energy, GHG Emissions

Renewable Energy:

- Use of Bio-Diesel in material handling equipment (Hydra, TPS & Bobcat)
- Solar powered street lamp for plant lighting.
- Purchased 75,00,000 units of renewable energy from 3rd party and fulfilled the RPO obligation for the mother plant supplying Clinker
- Usage of Hybrid i.e., wind and solar mills for lighting

GHG Emissions:

- Developed plant level road map with specific short term and long term GHG Reduction targets
- Conducting GHG awareness sessions to encourage plant level participation for GHG inventorization
- Reduction of fossil fuel consumption through process improvements by eliminating HAG
- Clinker factor reduction
- Inventorization of scope 3 emissions



Waste Management, Material Conservation

Waste Management:

- Introduction of TLM (Total Lubrication Management) system to to optimize use of oils & lubricants
- Condition monitoring through oil debris analysis to determine the exact need of replacement of oil

Material Conservation:

- Continuous reduction in usage of Limestone through higher usage of waste materials like Fly ash
- Efforts are on to increase the percentage of bulk despatch of material
- Elimination of use of fossil fuel i.e., Diesel in HAG through process optimization

Green Supply Chain, Product stewardship

Green Supply chain:

- Streamlining movement of vehicles inside the factory
- Installation of RFID in the vehicles to improve vehicle turn around time
- Raw material as well as product mainly moved through rail
- As a part of our corporate green supply chain initiative, we have initiated obtaining self declaration from suppliers for their social and environmental practices in line with ACC's practices

Product Stewardship:

- Improving quality of Cement bags
- Despatch of certain type of Cements like Concrete+ in paper bags
- During the year ACC has consumed 892 T of plastic waste as a part of their AFR activity

Life Cycle assessment & Other initiatives

Life Cycle Assessment:

- Life cycle assessment for various products with Cradle to Grave approach is in progress

Other Initiatives:

- Regular interaction with employees on various aspects of Greenco rating system, its benefits, way forward etc.,
- Implemented various other initiatives
- Issued Driver passports
- Included logistics safety into corporate safety mission
- Initiated many activities for community health, education, infrastructure development
- Educated community to have sustainable livelihood (candle making, stitching, electrician training etc.,)

Conclusion

We are hopeful that during the next cycle of assessment, Thondebavi would upgrade their rating to GOLD

Thank you!