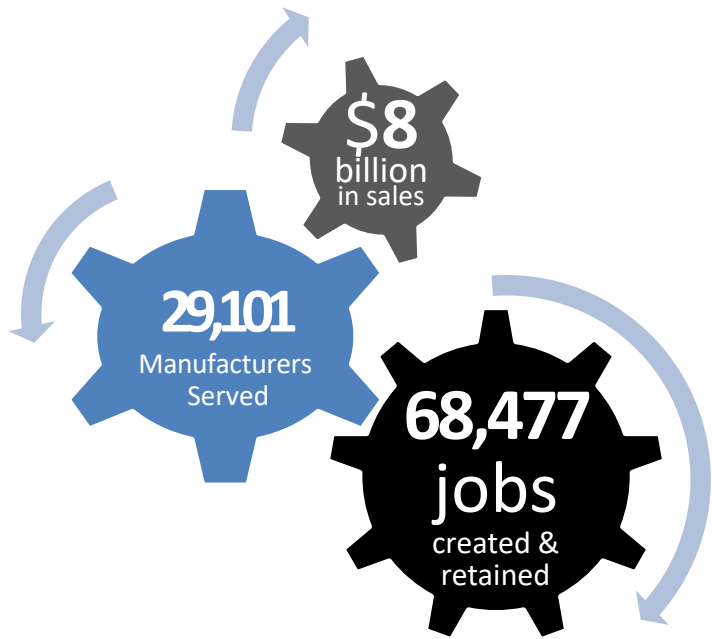




LEADING LEAN TO ENERGY SAVINGS

NIST/MEP



E3: ECONOMY · ENERGY · ENVIRONMENT
SUPPORTING MANUFACTURING LEADERSHIP THROUGH SUSTAINABILITY

INTEGRATED APPROACH



Process:		Customer:																
Date:		Opportunity																
STEP	PROCESS STEP	OPPORTUNITY TO ADD VALUE TIME (sec)	VALUE TIME (sec)	Lean	Energy	Environmental	Safety/Ergonomics	Financial	WHY	WHERE	WHEN	WHO	HOW	ELIMINATE	COMBINE	REARRANGE	SIMPLIFY	RECOMMENDED P2 ACTION

LEAN WASTES



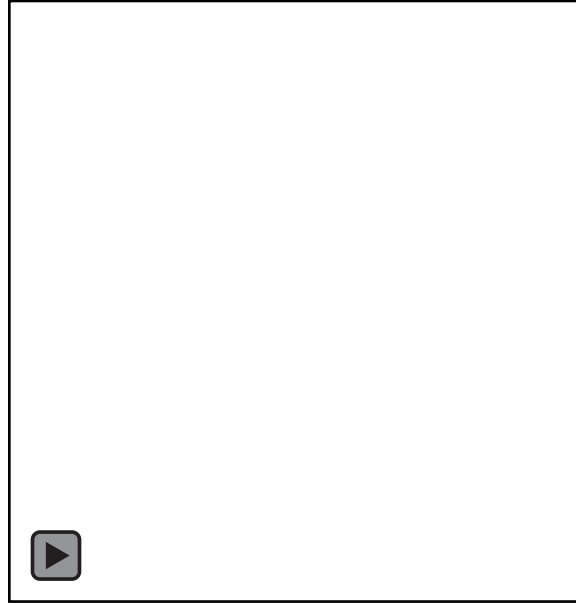
- Defects
- Overproduction
- Waiting
- Non-Value Added Processing
- Transportation
- Inventory
- Motion

ENERGY WASTES

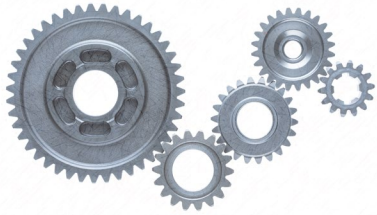
- Industrial Lighting
- Compressed Air
- Motors
- HVAC
- Thermal Systems
- Turning Off Unused Equipment



LEAN WASTE TO ENERGY WASTE



INTEGRATED APPROACH



New Nozzle

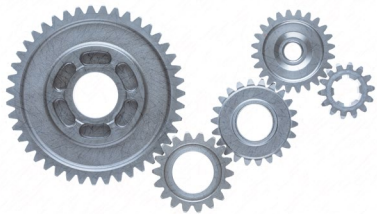
Faster
Cleaning

Less
downtime

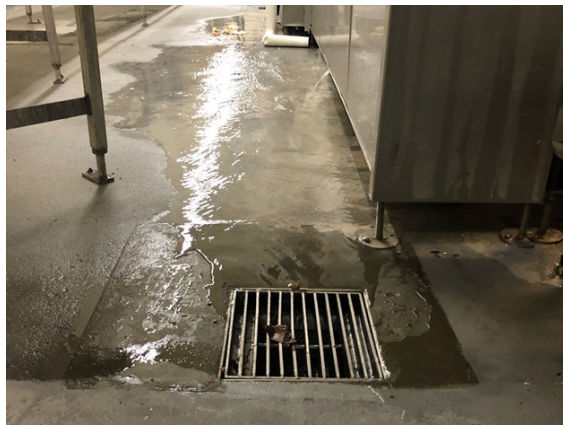
Less
Overtime

Less Energy
Use





INTEGRATED APPROACH



Less water
to treat

Lower
energy
costs \$

OTHER ENERGY SAVINGS

Defect Waste

- Mechanical issues
- Water, kWh,



Lighting Upgrades



Before



After

**Replaced 1000 watt lighting with energy efficient 300watt LED technology.
Lighting upgrades save \$366,250/year
Lighting upgrades had a payback of less than 1 year**

Turn Motors Off



**An idling 60 hp motor cost \$500/yr to operate.
Identified 10 motors idling 2 hours per
day=\$5000/yr.**

Turn Lights Off



**Turning off lights during sunny hours to reduce electricity costs.
Identified 53 fixtures X 8 hours X 175 sunny days=\$2200/yr.**



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CARES GRANT UPDATE: THE UNIVERSITY OF TEXAS AT ARLINGTON RECEIVED \$3.3 MILLION IN FEDERAL FUNDING TO HELP SMALL- AND MEDIUM-SIZED BUSINESSES RESPOND TO THE COVID-19

