



# GOVERNOR'S AWARD

### **PROJECT PRESENTATION**

Clear-Coat Elimination Project **Pollution Prevention** 

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### **PLANET 2050**

Cummins created an environmental sustainability strategy that sets specific targets to be met by 2050, with specific milestones for 2030

- Reduce absolute greenhouse gas (GHG) emissions from facilities and operations by 50%
- Reduce scope 3 absolute lifetime GHG emissions from newly sold products by 25%
- Partner with customers to reduce scope 3 GHG emissions from products in the field by 55 million metric tons
- Reduce volatile organic compounds emissions from paint and coating operations by 50%
- Create a circular lifecycle plan for every part to use less, use better, use again
- Generate 25% less waste in facilities and operations as percent of revenue
- Reuse or responsibly recycle 100% of packaging plastics and eliminate singleuse plastics in dining facilities, employee amenities and events
- Reduce absolute water consumption in facilities and operations by 30%



## **ABOUT CMEP**

### **Cummins Midrange Engine Plant**

6.7 L Assembly of turbo diesel engines







**Employees** across 3 shifts

## **MAJOR OPERATIONS**

1

### **Machining**

Block castings get delivered and go through machining process 2

### **Assembly**

Starting with the block, the engine is assembled

3

### **Test**

After assembly is complete, engine is tested

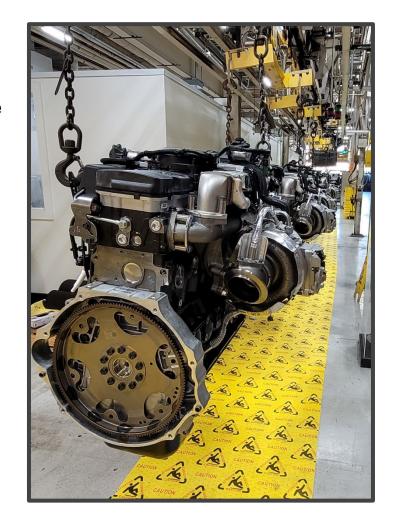


#### **Paint**

Engine goes through masking, wash, dry, paint, curing process

### **CLEAR-COAT ELIMINATION**

- Eliminated all the processes associated with "Paint" in <u>November 2021</u>:
  - Masking: protecting certain engine components with plastic caps from the water and paint
  - > Washing: 5 stages of wash that involved 3 different chemicals and water
  - > Drying: a chamber with warm air flowing through to dry the engine
  - > Painting (Clear-Coat): application of paint by 4 industrial robots
  - Cure Oven: 8 minutes for each engine in a large oven to cure the clear coat
- By eliminating this process, there was a significant reduction of pollutants released to the environment
- Motivated by environmental goals, but also translated into financial savings, improved plant product quality and productivity

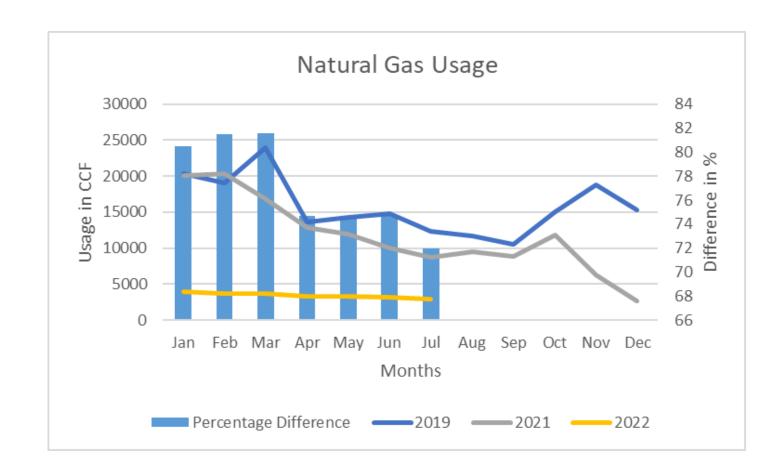


# 9 MILLION GALLONS

**Monthly Natural Gas Usage Saved** 

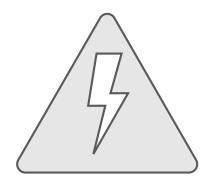


The equivalent to:
Power an average
US home for 20
years



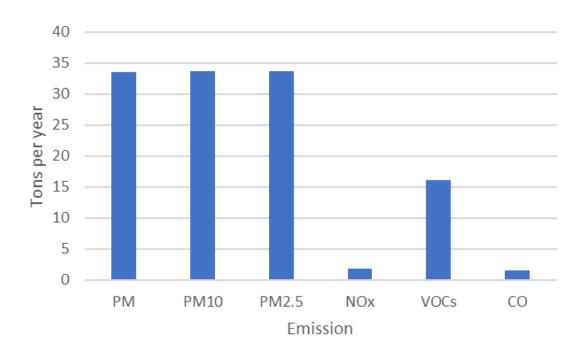
### 1.8 MILLION kWh

**Annual Electricity Savings** 



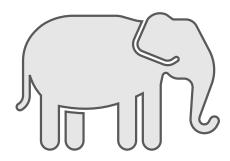
The equivalent to:
Running a
refrigerator for
2,700 years

#### **Emissions Avoided**



16,500 LBS

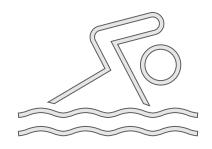
Waste Prevented (paint filters, caps, rags) per pickup



The equivalent to:
The weight of 1.5
average elephants

# 4.3 MILLION GALLONS

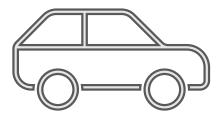
**Annual Waste-Water Prevented** 



The equivalent to:
7 Olympic sized
pools

## **23,500 GALLONS**

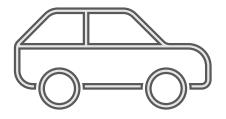
**Annual Chemicals Savings** 



The equivalent to:
The volume of 19
SUVs

## 13,780 GALLONS

**Annual Waste Paint Savings** 



The equivalent to:
The volume of 11
SUVs

# THANK YOU!

Q+A

