

Office of Outreach and Recruitment Engineering Business Assistance

NM MEP MANUFACTURING DAY
JULY 20, 2022

Jalal Rastegary

College of Engineering

Office of Outreach and Recruitment



BE BOLD. Shape the Future.
New Mexico State University

Engineering Business Assistance Programs

Pollution Prevention
(P2 Program)

Environment, Energy, Economy
(E3 Program)





THE BORDERPLEX ALLIANCE



NEW MEXICO
BREWERS GUILD

PNM Resources®



NMRC
NEW MEXICO RECYCLING COALITION



Energy, Minerals and Natural Resources Department

Office of Outreach and
Recruitment



EPA



EDD
ECONOMIC
DEVELOPMENT
DEPARTMENT

TMAC
Work Smart. Grow Smart.™

new mexico
MEP
manufacturing
extension
partnership



TRI-STATE



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What is P2?

- Any practice to Reduce, Eliminate, or Prevent pollution at its source
- Source reduction: Ounce-of-prevention approach to waste management
- Reducing pollution: Means less waste to control, treat, or dispose of.
- Less pollution: Means fewer hazards posed to public health and the environment, and less liability for the businesses



E3

- Helps reduce energy consumption
- Minimizes carbon footprints
- Prevents pollution
- Increases productivity
- Drives innovation

When manufacturers, communities, and utilities collaborate, the benefits reach far beyond manufacturers' production lines.

Environment, Energy, Economy (E3) also called the Lean and Green program provides on-site environmental and energy efficiency, and waste reduction. The EPA's current funding allows assessments of businesses within the Food and Beverage Manufacturing and Processing and Metal Manufacturing and Fabrication sectors. E3 is focused on reducing environmental and energy use and related costs, as well as promoting the installation of renewable energy sources, where applicable.

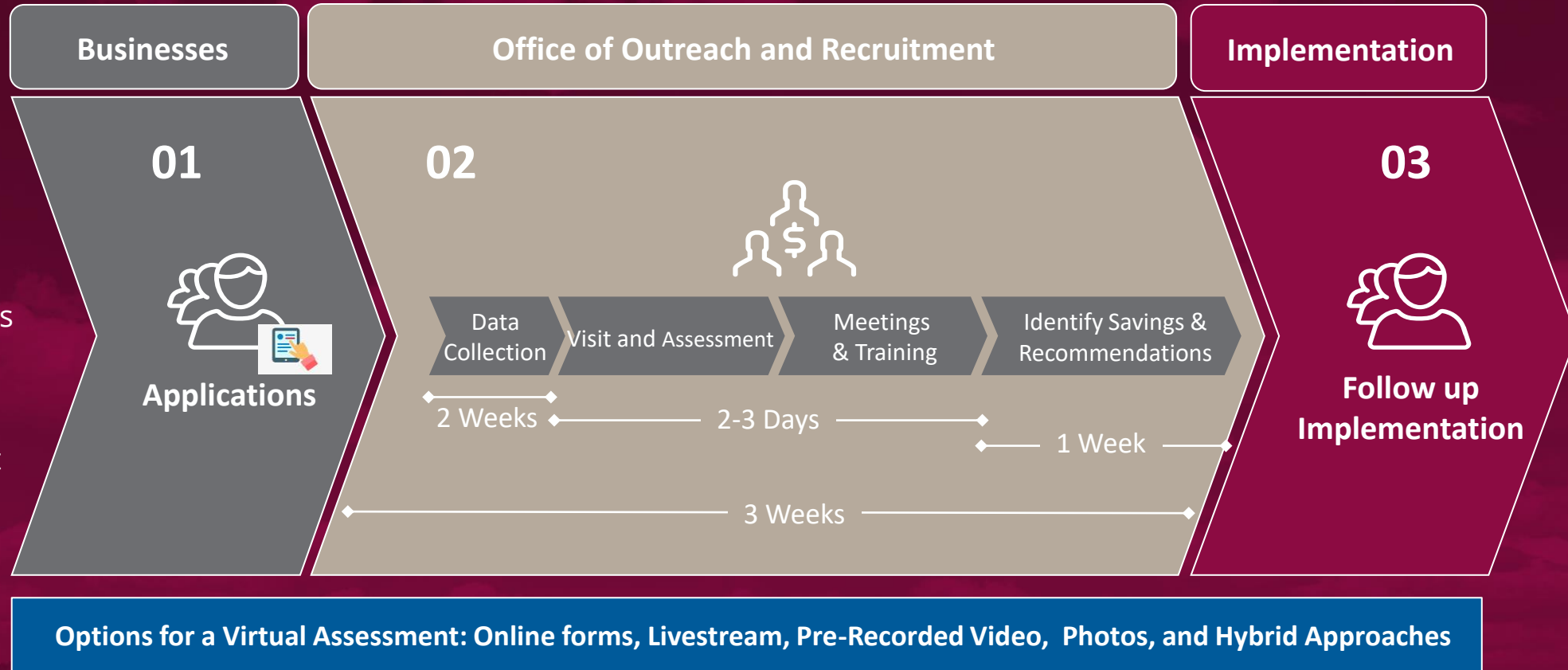


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WHAT DO WE DO?

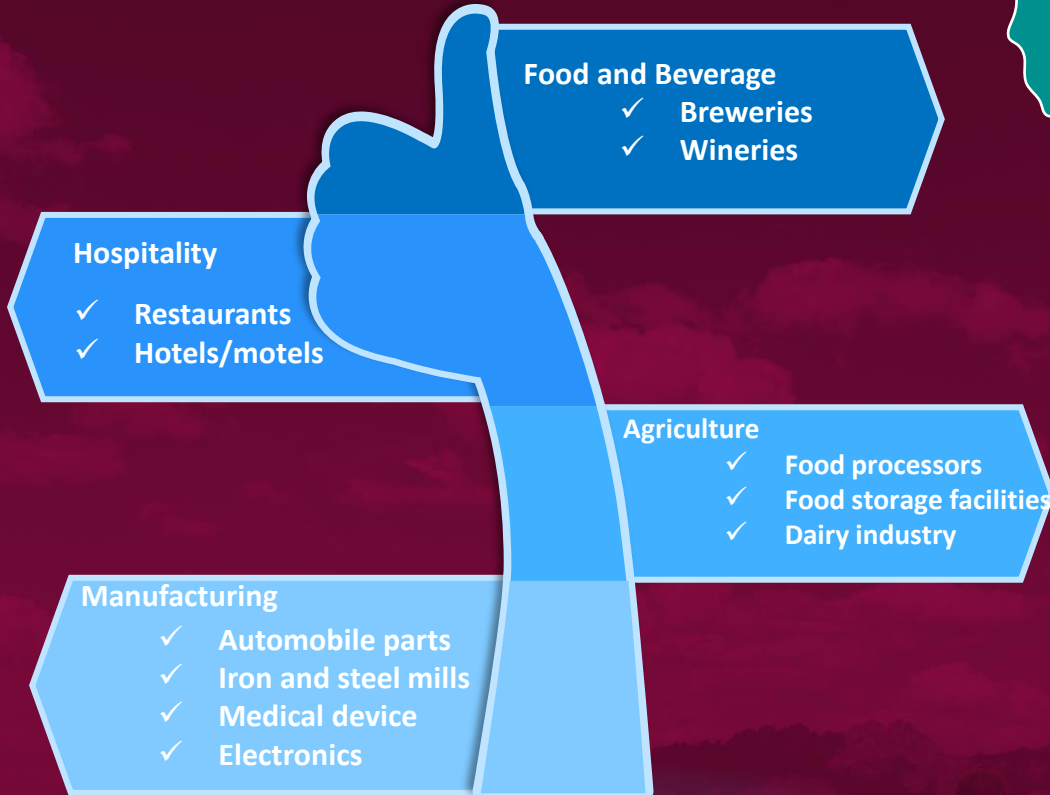
An on-site P2 / E3 assessment includes pollution prevention and energy-efficiency audit & P2/E3 feedback report with recommendations

- Employs an Assessment Process that Moved Smoothly from Identifying Opportunities to Implementing Them
- Ensures that identified opportunities are understood by the owners
- Discuss next steps to increase implementation
- Obtain management review of feedback report



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Main Sectors of Technical Assistance



Engineering Business Assistance provides technical assistance to businesses, industries and government agencies

E3 and P2 Services in New Mexico and El Paso TX Area

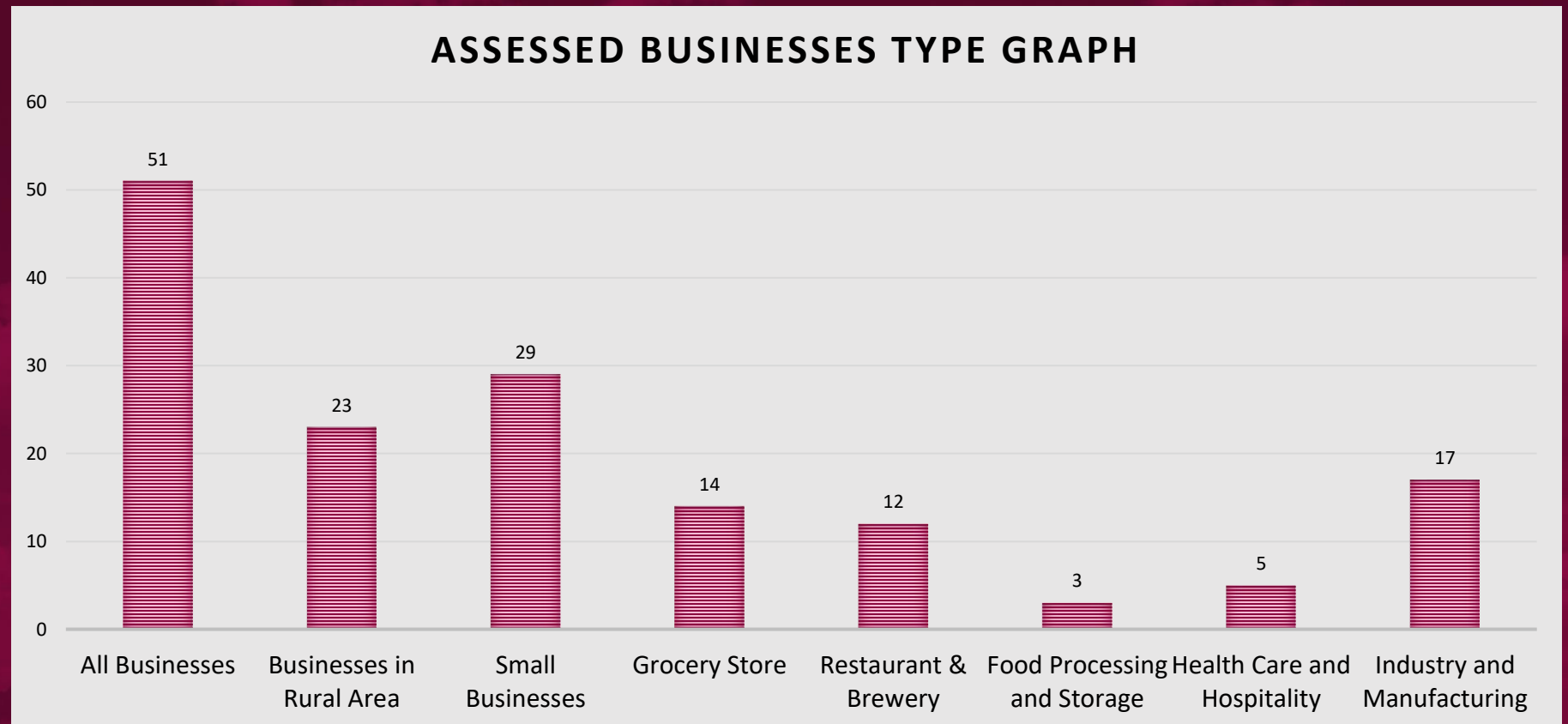
More than 50 businesses



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E3 and P2 Services in New Mexico State and El Paso TX Area

Mora
Las Cruces
Silver City
Bernalillo
El Paso
Santa Fe
Clovis
Afton
Albuquerque
Cuba
Socorro
Cedar Crest
El Rito
Taos
Alamogordo



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P2/E3 Program Resulted in the following benefits (2016-2021)



Greenhouse Gases
Elimination

39,100 MTCO₂



Water
saving

45,900,000
Gallons



Energy
saving

24,100,000 kWh



Hazardous material &
Solid Waste Reduction

8540 Tons



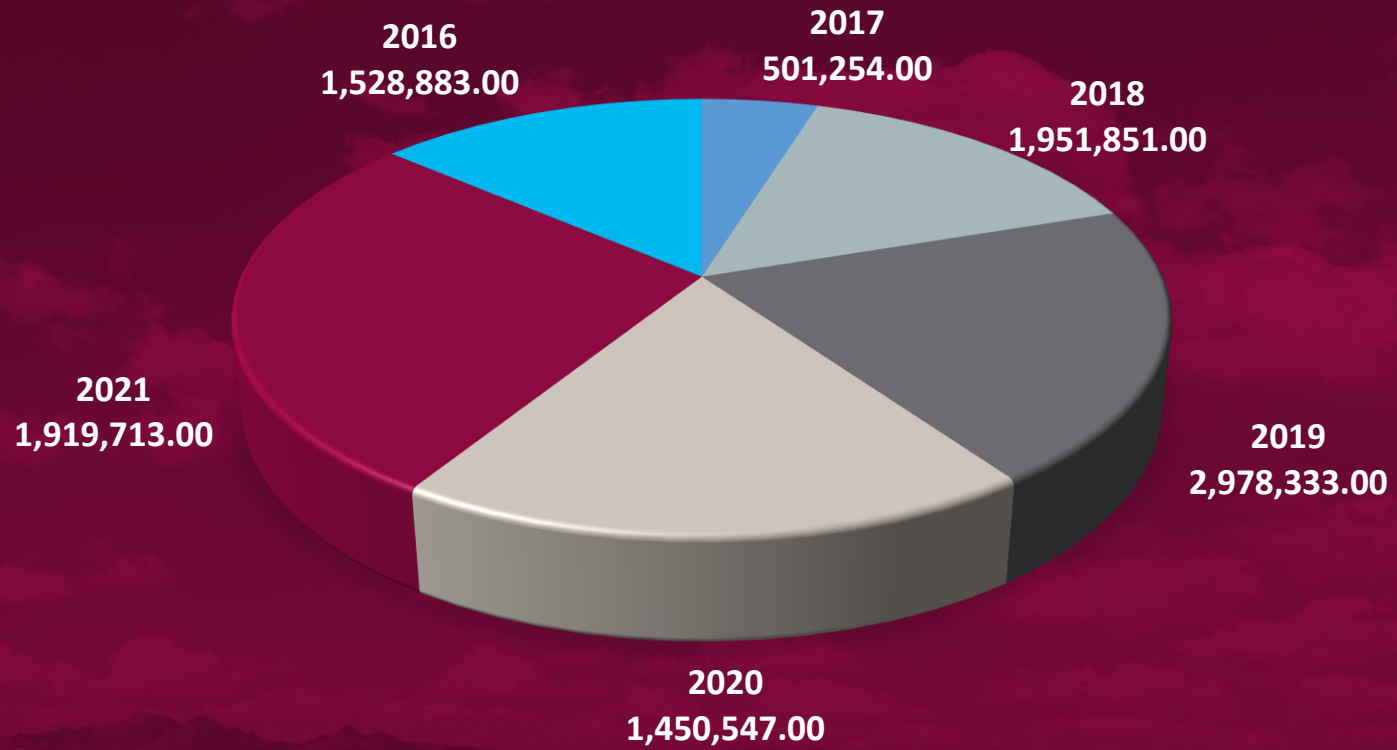
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P2 Program Resulted in the following benefits (2016-2021)

ANNUAL COST SAVINGS

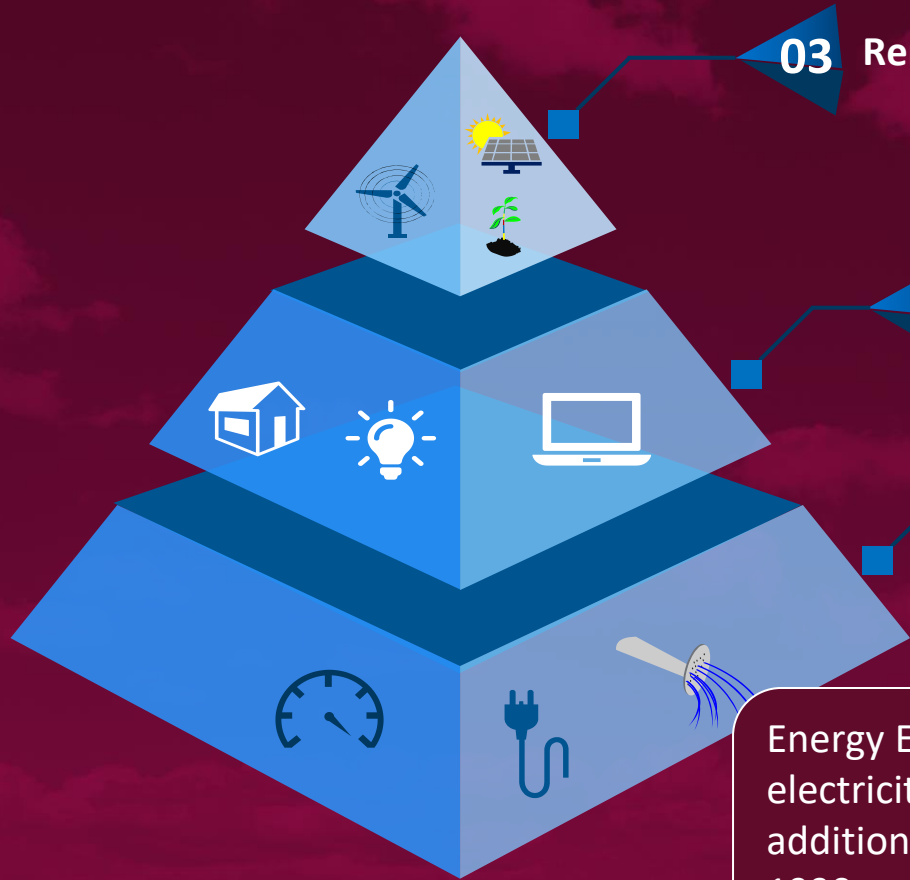


\$10,400,000



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Conducting Energy Audit to find Opportunities For Improvement for Energy Saving



03 Renewable Energy

- Solar power
- Wind Power
- Geothermal Power
- Biomass Energy

02 Energy Efficiency

- Using energy more wisely or efficiently using technology that requires less energy to perform same function

01 Energy Conservation

- By saving or using less energy
- by changing energy wasting habit and lifestyles

Energy Efficiency could provide one-third of total expected electricity generation needs by 2030 avoiding the need for an additional 487 large power plants. Combined with the gains since 1990, savings could amount to an output of 800 power plant by 2030 (ACEEE)

Lighting

Building /Construction

Heating & Cooling

Energy Star Equipment

Fuel efficiency

HVAC Ventilation

Automated Controls

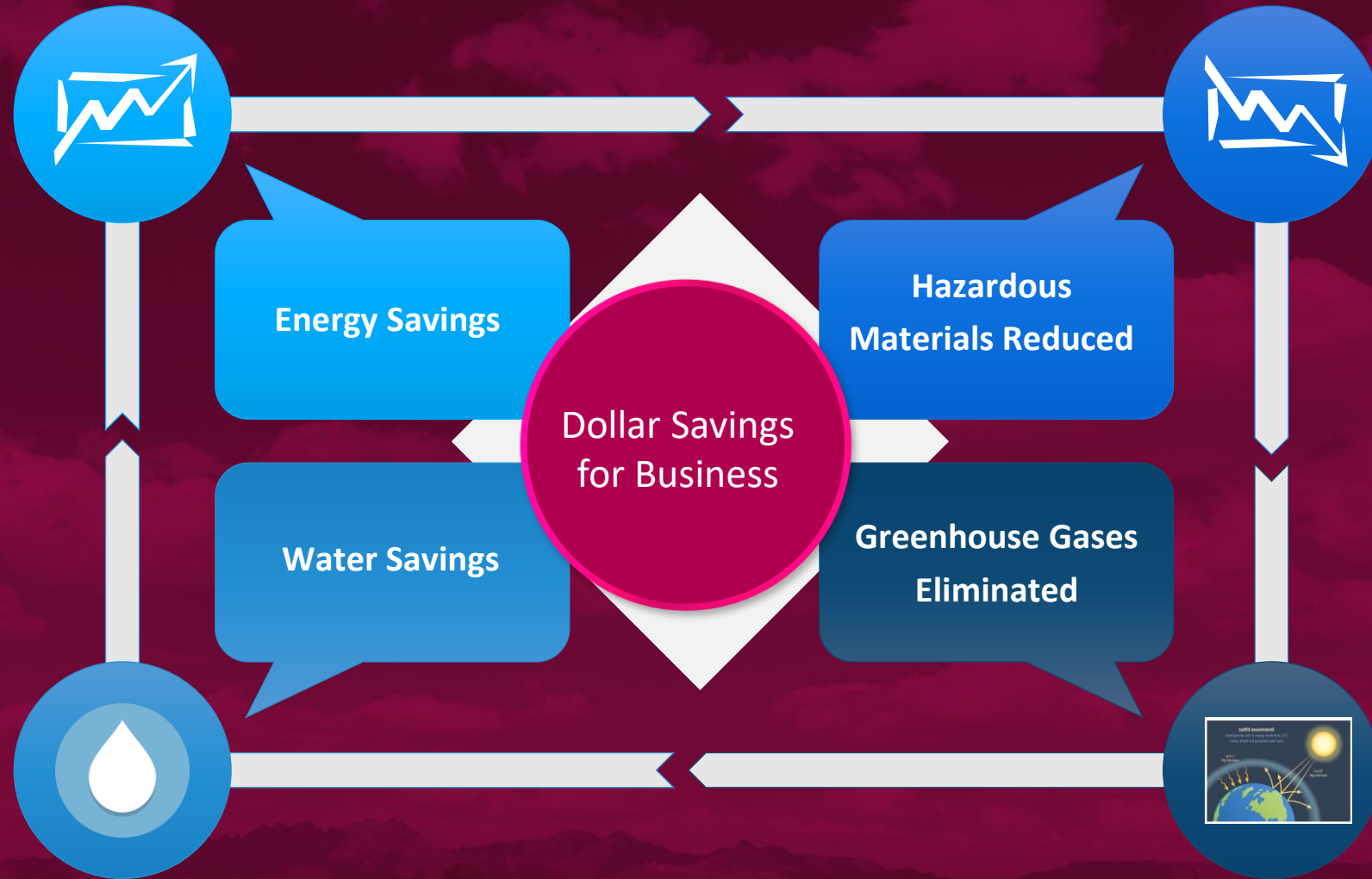
Refrigeration

Renewable Energy



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Assessment Results Presentation



Implementation Follow up and Resource Availability

Recommendations for No-Cost Savings

- Process improvements
- Operational maintain
- Employee training

Recommendations for Strategic Investments

- Equipment upgrades
- Facility renovation
- Facility layout and design
- Renewable energy integration

Available Resources

- Introduce Loans and Grants
- Utility Companies Rebates
- Water Saving Incentive

Thank you

Jalal Rastegary

Phone: 575 646 1510

<https://engrnm.nmsu.edu/index.html>

Email: rastegar@nmsu.edu



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