



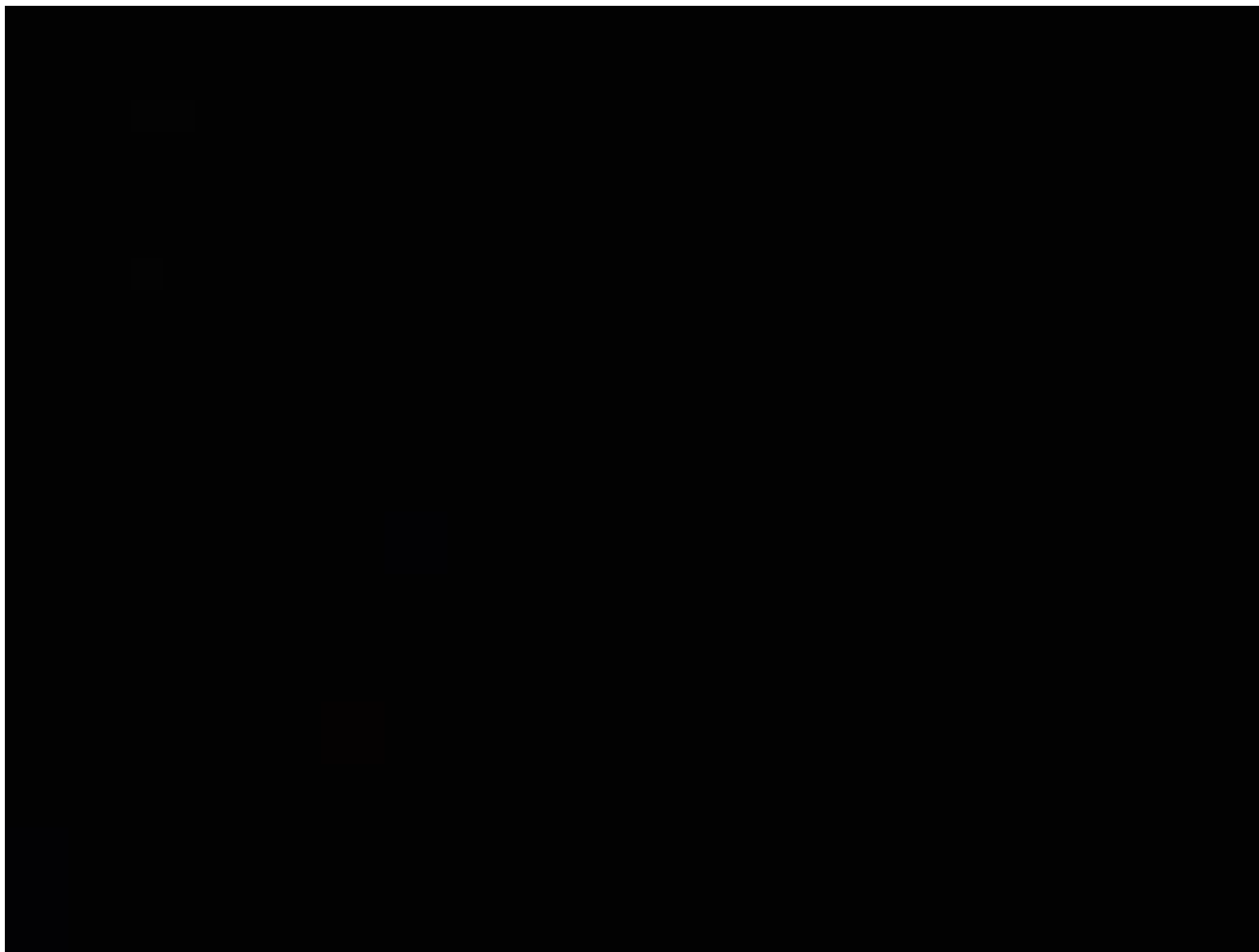
# **Energy Partnership: Promoting Fiscal Responsibility, Environmental Stewardship and County Employee Well-Being**

## **INVESTMENT GRADE UTILITIES AUDIT**



In Cooperation with:

**APS** *energy* **SERVICES**



# PROGRAM HIGHLIGHTS

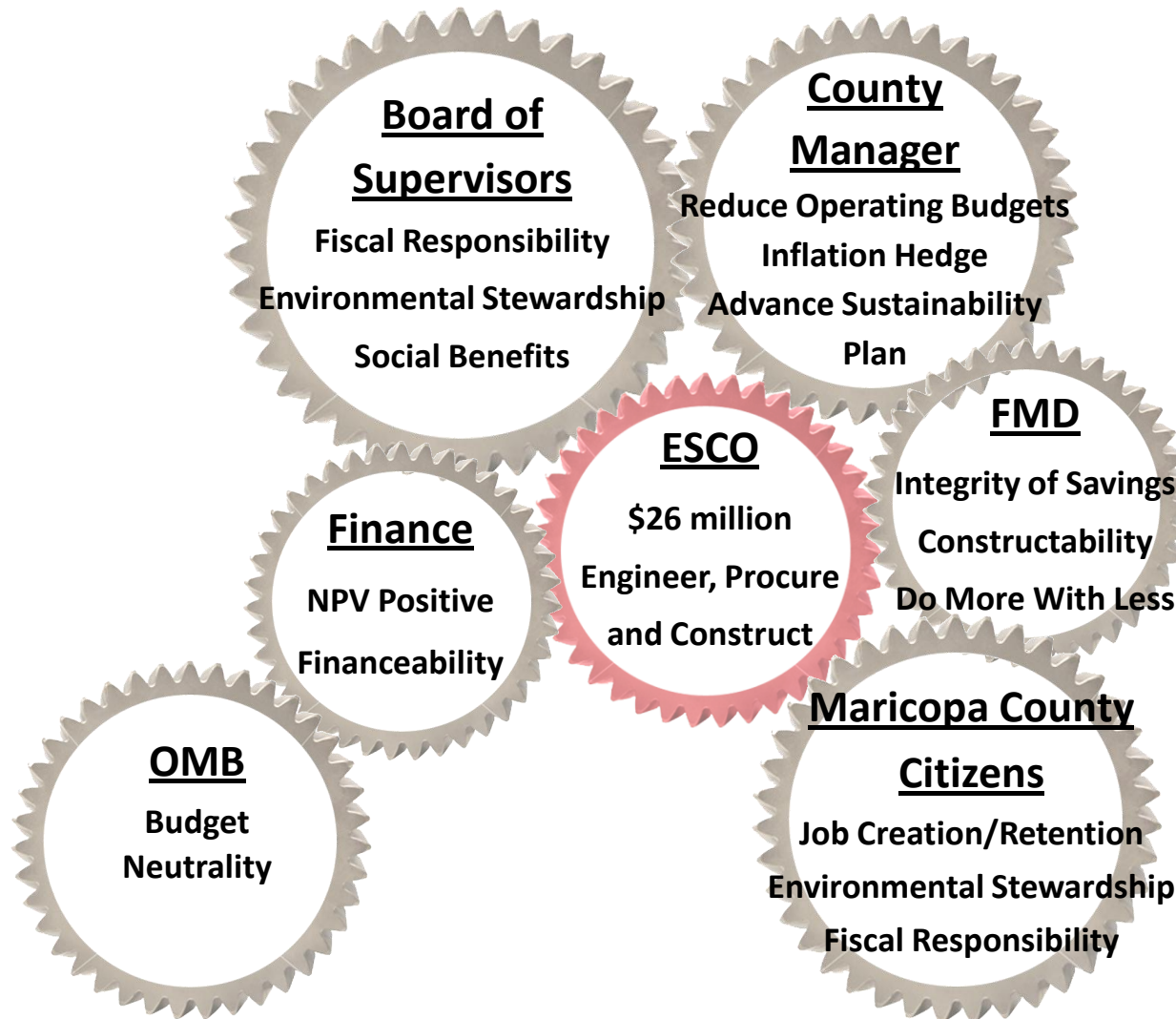
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- **\$26 Million Project**
- **\$1.7 Million Projected Annual Savings**
- **Potential of \$3.3 Million One – Time Rebates**
- **29 Million Pounds of CO<sub>2</sub> Reduction**
- **286 Construction Jobs Created\* (Assumes 1 Job per \$92,000)**

\*Source: [http://www.eia.doe.gov/kids/energyfacts/science/energy\\_calculator.html#natgascalc](http://www.eia.doe.gov/kids/energyfacts/science/energy_calculator.html#natgascalc)

# BALANCE OF PRIORITIES



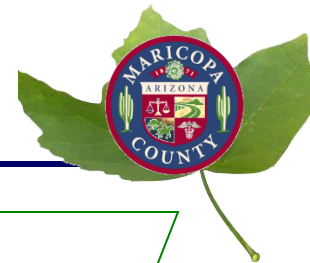
# UTILITY CONSERVATION MEASURES

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- **Lighting Retrofits**
- **Water Retrofits**
- **Solar Thermal Water Heating**
- **HVAC/Motors Retrofits**
- **Controls**
- **Central Plant Retrofit**

# AUDIT REVIEW PROCESS



**90% Final**

**257 Projects**

**\$26.3 M**

- Eliminated Behavioral Modification Savings
- County Self Performs Select Solar Thermal, Lighting and Programmable T-stats Projects
- Additional Projects Eliminated for Economic and Technical Reasons

# RECOMMENDED PROGRAM



Utility Conservation Measure	UCM Count	Upgrade Price		Annual Cost Avoidance		Potential Rebates & Incentives		Simple Payback (Years)
Lighting Retrofits	113	\$	13,506,000	\$	981,000	\$	1,258,000	13.1
Water Retrofits	69	\$	3,098,000	\$	288,000	\$	-	11.9
Solar Thermal Water Heating	7	\$	5,635,000	\$	208,000	\$	1,883,000	20.0
HVAC / Motors Retrofit	25	\$	1,216,000	\$	79,000	\$	3,000	17.1
Controls	36	\$	2,475,000	\$	136,000	\$	166,000	18.9
Central Plant Retrofit	7	\$	380,000	\$	45,000	\$	9,000	9.2
<b>TOTAL:</b>	<b>257</b>	<b>\$</b>	<b>26,310,000</b>	<b>\$</b>	<b>1,737,000</b>	<b>\$</b>	<b>3,318,000</b>	<b>14.3</b>

# ENVIRONMENTAL BENEFITS



Type of Pollution	Pollutants Reduced (Pounds)
Carbon Dioxide (CO <sub>2</sub> )	29,414,900
Sulfur Dioxide (SO <sub>2</sub> )	15,036
Nitric Oxide (Nox)	27,719



3,314

Passenger cars not driven for one year, *or*



1,912,504

Gallons of gasoline saved in one year, *or*



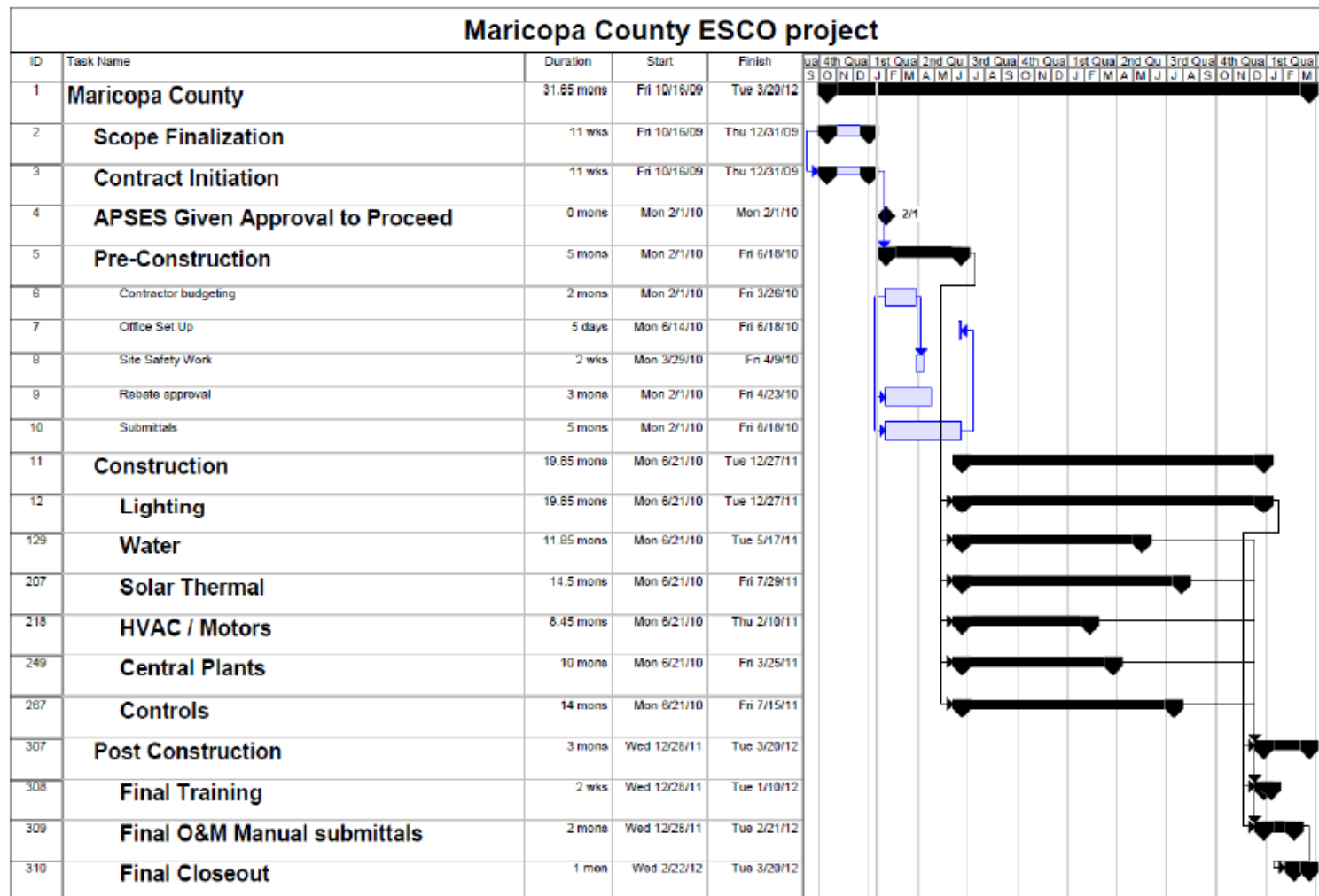
473,392

Trees/Year planted and growing for 10 years.

Based on 21,991,000 kWh



# Project Schedule





**Thank You**