



# 8192 Alamo Transformers

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**Jerry Fielder**

**Engineering Division Manager, DME**

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ID23-1009



# Concerns & Actions

## Safety

- Experiencing a failure rate of 20% for new transformers
- Safety for field crews during installation
- **FY23-24 Capital Budget Item for industry standard testing equipment**

## Customer Service

- DME works to maintain stock minimums for current customers and emergencies
- DME has fallen under minimums for several transformer sizes
- Shipments continue to be sporadic
- **Looks for multiple avenues to maintain inventory levels including emergency purchases, refurbs, multiple vendors, cooperative contract opportunities**

## Supply

- Contracted lead time is 60 weeks, actual lead time is 80 weeks
- **Current industry planning horizon will be set for 3-4 years**



# Concerns & Actions

## Regulatory

- DOE NOPR – Energy Conservation Standards for Distribution Transformers (effective 2027)
  - Required to move from Core Steel to Amorphous Core
    - Higher cost
    - Larger/Heavier
    - Benefits from efficiency gained has been questioned (transformers are already built to an efficiency of 99.5% or higher<sup>1</sup>)
    - More expensive
  - Requires re-tooling at manufacturers facilities
- It is believed NOPR will exacerbate an already stressed supply chain issue



<sup>1</sup> Letter to Secretary Jennifer Granholm, US Dept. of Energy from APPA, et. al, February 15, 2023

# Market Volatility

kVA	Phase (pad)	FY21-22	FY22-23 YTD <sup>1</sup>	3-4 Year Planning Horizon <sup>2</sup>	2018 Contract Pricing (new)	Lead Time (weeks)	2023 Contract Pricing (new)	Lead Time (weeks)	Δ	Reconditioned (1Φ only)	Lead Time (weeks)
										Refurbished <sup>3</sup>	
25	1Φ	97	20	390	\$2,195	14	\$8,103	60+	269.16%	\$1,286	ALAMO repair time that fits repair specifications is approximately 12-16 weeks
										\$5,115	
50	1Φ	148	95	1030	\$2,646		\$9,995		277.73%	\$1,387	
										\$6,050	
75	1Φ	112	25	810	\$3,121		\$13,047	40+	318.05%	\$1,387	
										\$8,155	
100	1Φ	40	12	200	\$3,853		\$15,158		293.40%	\$1,792	
										\$10,790	
750	3Φ	2	3	45	\$23,146		\$65,346		182.32%	N/A	
										\$35,205	
2500	3Φ	1	1	10	\$58,970		\$163,440		177.15%	N/A	
										\$115,495	



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<sup>1</sup>DME ceased all standard maintenance transformer operations in order to maintain minimums.

<sup>2</sup>Includes projections for Hunter & Cole Ranch.

<sup>3</sup>Estimated based on historic charges and quotes received

# Estimated Spend

Project Description	Estimated 3-Year Expenditure
Year 1	\$ 3,000,000
Year 2	\$ 3,000,000
Year 3	\$ 3,000,000
Contingency	\$ 1,000,000
Total	\$10,000,000



# Alamo Contract

- One component of an overall strategy to allow DME multiple avenues to meet long term transformer requirements (3-4 years) with the current and projected supply chain issues.
  - Rebuild or refurbish current transformers and return to service.
  - Purchase rebuilt/refurbished.
  - Shorter lead times and DME can apply credit from salvaged transformers.
  - Provides relief in supply chain challenges and service reliability support.
  - Supports sustainable practices with pick-up and disposal of used oil and scrap irreparable transformers.
- When approved funding is depleted, DME will bring a new contract for approval if additional spend authority is required.
- Staff recommends approval of contract with Alamo transformers.

# Questions?

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