

# Engine and Generator Overhauls at Plant No. 1 and 2 Contract No. J-135B

Presented by:  
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Acting Director  
of Engineering

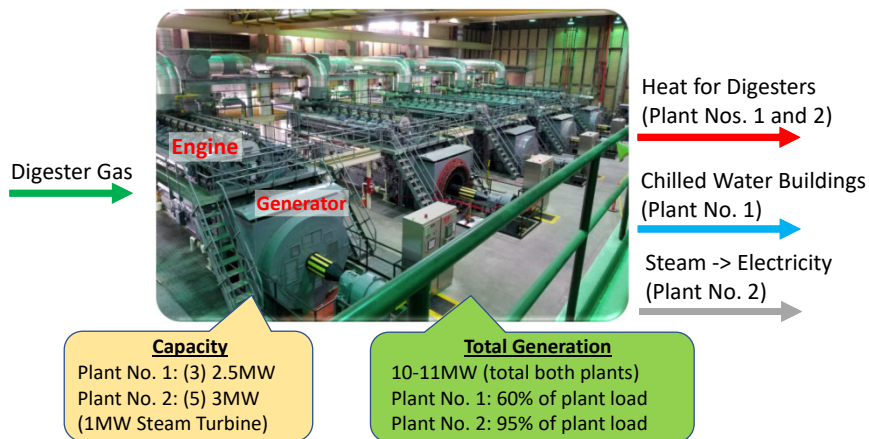
Operations  
Committee  
April 5, 2023



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## Background - Central Generation

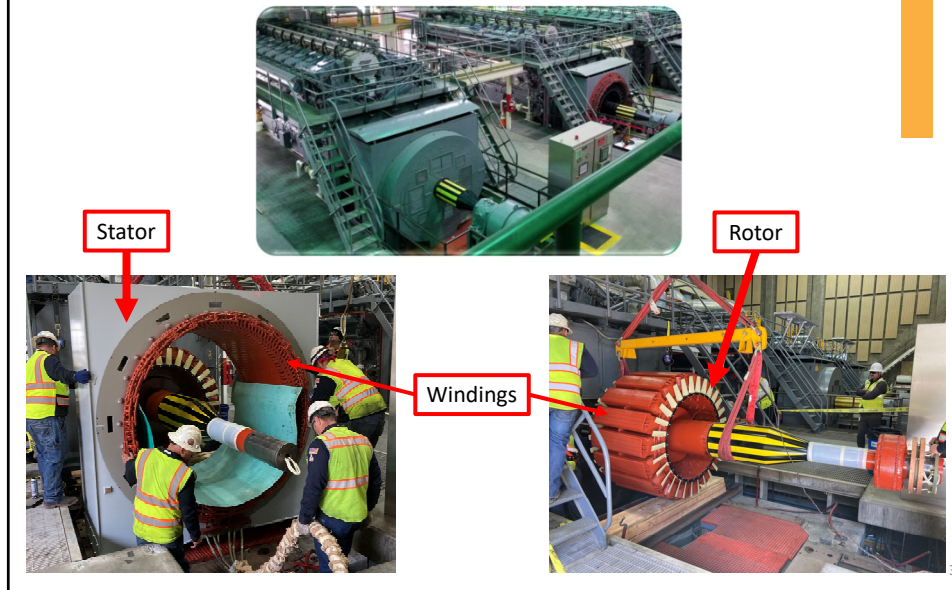
Central Generation Facilities installed in the early 1990s at Plant No. 1 and 2



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## Major Components of a Generator



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## Original Scope of Work

### Engine Scope (4 engines):

- Overhaul

### Generator Scope (5 generators):

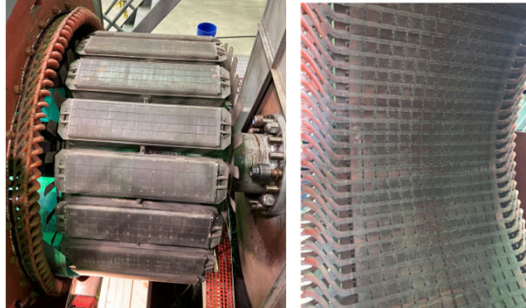
- Test stator and rotor windings
- Steam clean
- Replace power cable leads
- Replace auxiliary components



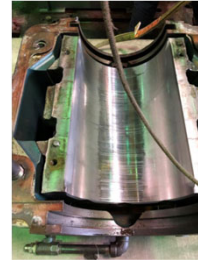
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## Initial Findings



Cracked generator cable leads



Wear on bearing surface

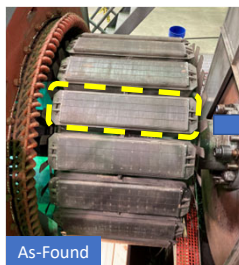
### Generator Winding Findings

- Signs of insulation failure (carbon dust)
- Aged insulation based on additional testing
- Damaged insulation
- Windings may not survive steam cleaning

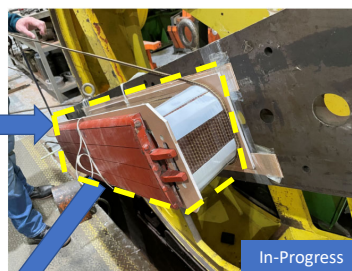
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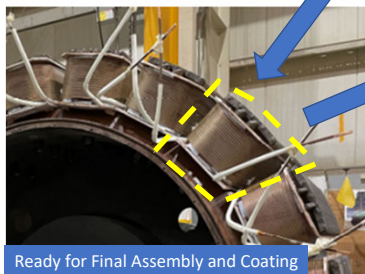
## Rotor Rewinding



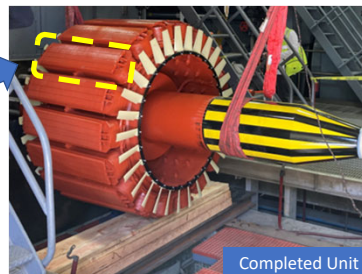
As-Found



In-Progress



Ready for Final Assembly and Coating

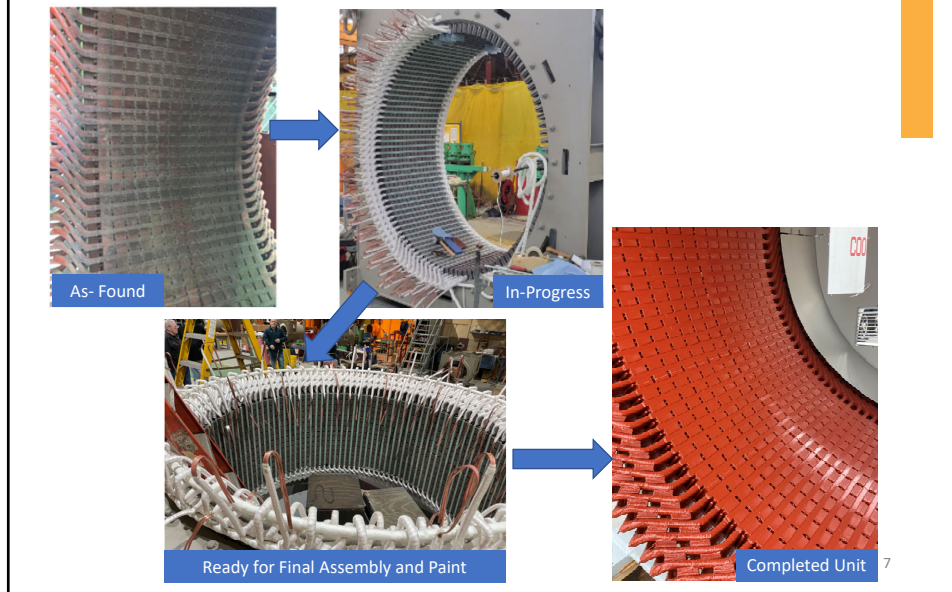


Completed Unit

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## Stator Rewinding



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## Contingency Fund Request

Original Contract = \$29,361,029

	CONTINGENCY
Original Board Approved Contingency	\$2,936,103 (10%)
Issued Change Order (rewind two generators)	-\$917,783 (-3.1%)
Future Change Order (rewind three generators)	-\$1,637,117 (-5.6%)
<b>Remaining Contingency</b>	<b>\$381,203 (1.3%)</b>
<b>Contingency Increase Request</b>	<b>\$1,637,117 (5.6%)</b>
<b>Remaining Contingency After Request</b>	<b>\$2,018,320 (6.9%)</b>

**Total Request Contingency = \$4,573,220 (15.6%)**

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## Recommendation

Recommend to the Board of Directors to:

Approve the addition of funds to include generator overhauls as part of the construction contract with Cooper Machinery Services LLC, for the Engine and Generator Overhauls at Plant No. 1 and 2, Contract No. J-135B, in the amount of \$1,637,117 (5.6%), for a total construction contingency of \$4,573,220 (15.6%).

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## Questions



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