

Asset Replacement rather than Maintain

Air Break Switch Replacement Project

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Horizon Energy



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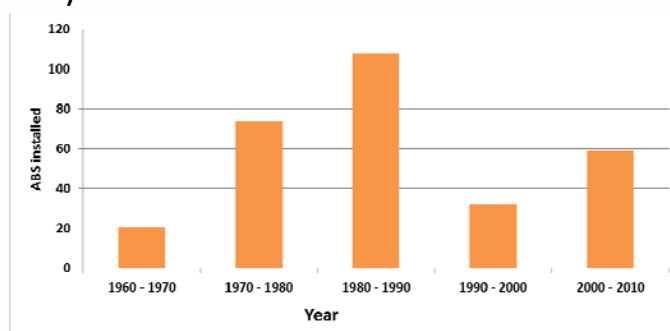
Air Break Switch (ABS) Technology

- Air Break Switches are special switches designed to isolate a circuit.
- Provides Visual Break
- Simple to Operate
- Service life of around 15-20 years



Horizon Energy ABS Profile

- There are 368 ABS in service
- More than 200 ABSs are in service for nearly 30 years
- Mostly disconnectors – No Load Break



Horizon ABS Issues

- High Maintenance and failure rate
- Public Safety
- Copper Theft
- Technical
- Operational



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Horizon ABS Issues

Mechanical Issues

- High corrosion and rusting
- Misalignment of mounting bracket, contacts and flickes
- Burnt contacts
- Operating Handle alignment
- Limited automation options



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Horizon Safety By Design Policy

- **Safety by Design**
 - i. Arching
 - ii. Load Break capacity
 - iii. No Operating Handle
 - iv. Maintenance free
 - v. No Earth Bank
 - vi. Future proofing



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Enclosed Switch Technology

- Operator Safety
- Low Maintenance
- Long Operating life
- No moving parts in air
- Operator independent
- Automation capabilities
- Stick operation option



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Enclosed Switch Challenges

- No Visual Break
- Weight
- Insulation medium
- Installation
- Moving away from ABSs

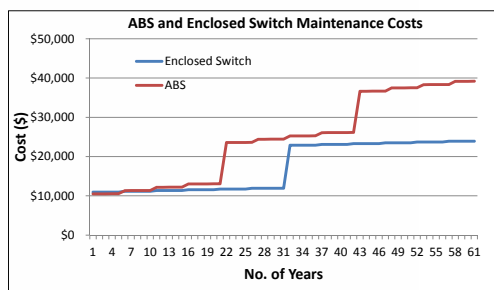
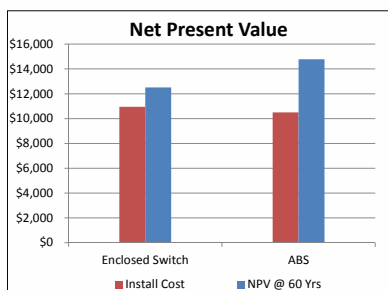


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Commercial benefits

- Installation cost for both Switches nearly similar
- Maintenance cost high for ABS
- Earth Bank testing cost for ABS
- ABS and Enclosed Switch age comparison



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Conclusion

Enclosed Switch technology to replace ABS technology at distribution lines.



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Questions ?



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