Life cycle costing plays a big role when deciding whether to maintain and repair or to replace equipment. Rarely is it more economic to replace equipment ahead of its end of life unless it has failed or there is a requirement for additional capacity or capability. In most cases, it is more economic to maintain and repair to extend the life as long as possible. The criteria below are designed to help make sound repair versus replace decisions.

It is BPA’s policy that assets be considered for replacement when:

- An asset is near or beyond its expected life;
- The asset reliability and the consequences of failure poses an unacceptable risk;
- The repair/refurbishment costs exceed the life cycle cost of an asset replacement;
- The asset’s performance has been unacceptable and corrective maintenance measures will not lead to acceptable performance;
- Additional asset capability is required and the replacement equipment provides that additional capability while improving operations, reducing costs, and make it easier to maintain;
- The existing equipment is technologically obsolete, spare parts are expensive or hard to get, and skill requirements to properly repair and maintain are hard to find;
- The existing equipment poses an unacceptable security risk, health and safety risk, or environmental risk and the cost to mitigate the risk exceeds the asset life cycle replacement cost.

Note: Maintenance and repair costs are typically expensed, while replacement costs are capitalized.