h) Replacement Value

The value to replace the operational units shall be estimated. The objective of this estimate is, together with the estimated replacement year, to have a statistically relevant estimate of the global Capital Investment required.

Objective is to have a rough individual estimate for assets with a long remaining life, getting towards a more precise individual estimate for operational units to be replaced in the following year. To make this estimate more relevant and precise, initial value of the assets corrected for general inflation should be taken into account.

Replacement value of assets whose replacement year is estimated to be at least 10 years away will not be estimated unless rough estimates are readily available (for instance from initial installation costs).

6.12.2 Specific Cases

a. Minor Operational Units and Non-Critical Assets

Assessment of the Condition, Performance and Criticality, as well as the replacement value of the unit will be assessed on a priority basis. Critical plants and plants whose Performance or Condition grades are known/anticipated to be low will be assessed first.

- For minor operational units in non-critical plants, Performance Grade and Condition Grade may be assessed without going in the detail of each of their components.
- Criticality may also be assessed at a higher level in the Asset Register Tree (level 4 or even level 3).

b. Assets Not in the Asset Register

Some assets may not be in the asset register as they are hidden and/or require no specific maintenance. Another case may be assets not under Contractor responsibility, which may make them difficult to assess properly, but still key assets for the pumping station: example is transformers under ADDC responsibility. These will be added to asset register on an as found basis and assessed as per the above process.

c. Replacement of Ancillary Equipment

Some non-specifically identified assets of low individual value may need to be replaced on a regular basis. Examples of this are manual valves, railings, etc.

From an asset management perspective the usual way to manage replacement of these assets is to have a yearly estimate not identifying the precise assets to be replaced (as they are not individualized in the asset register). Then this program is developed during the year on an emergency (failed assets) and systematic (number of items to be replaced) basis.

d. Final Data Gathered

Each operational unit is listed and identified in CMMS, where information already available includes equipment ID, tag, description, type.

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