**Energy efficiency purchasing Policy**

In order to make the most informed decision on prospective purchases, the Total Cost Ownership (TCO) will be determined by quantifying all significant economic benefits (costs) *over [number of years]* years.

TCO will be analyzed using either a simple payback or life-cycle cost analysis based on useful-life and cost thresholds of *[number of years]* years and $*[dollar amount]*.

* Simple payback accounts for the number of years until the cumulative savings equals the cost without regard for the time-value of money and = (initial cost) / (savings per year)
* Life-cycle cost accounts for the total cost of owning, operating, maintaining, and disposing of an item and = (initial purchase + installation costs) – (salvage value + operational costs + maintenance costs + disposal costs)
* Simple payback analysis should be documented for all purchases that exceed the $*[dollar amount listed above]* threshold value of short-life (*[number of years listed above]*) items
* For long-life items (all those that exceed *[number of years that are determined to be short-life],* simple payback analysis is only allowed if the cost threshold does not exceed *$[dollar amount]*
* Life-cycle cost analysis should be documented and used to analyze TCO of all other purchases

The following information is needed to determine TCO:

* Initial purchase costs
* Installation costs
* Salvage value (if item being purchased is a replacement)
* Operational costs (energy, water, etc.)
* Maintenance costs (including repair and replacement)
* Eventual disposal costs

***[Item to be purchased]***

**Purchase Justification**

|  |  |  |
| --- | --- | --- |
| **Options** | **Simple Payback Analysis** | **Life-Cycle Cost Analysis** |
| *[List all options being considered for purchase- add rows as needed]* | $*[initial cost] / [savings per year]* | $*[initial purchase + installation costs]- (salvage value + operational costs + maintenance costs + disposal costs)]* |
| **Decision:** *[Explain why option was selected for purchase]* | | |

**Approval**

*[Name]*  *[Month dd, yyyy]*

*[Title]*

**Purchase Justification Details**

**Initial Purchase Costs**

$*[dollar amount]*

**Installation Costs**

$*[dollar amount]*

**Salvage Value**

$*[dollar amount- if item being purchased is a replacement]*

**Operational Costs**

* Energy usage per energy state
  + *[Energy state- add bullet for each energy state]*: *[energy usage- obtained from vendor, (standing energy usage per unit of time in various operational modes (i.e. hibernation, standby, ready, high, medium, low, etc.); in many cases this will not include actual production energy usage)]*
* Estimated energy usage per unit of production
  + *[Unit of production]: [energy usage- obtained from vendor/ with help from vendor]*
* Supplies
  + *[Non-maintenance supplies needed for production- add bullets as needed- obtained from vendor/ with help from vendor]*

**Maintenance Costs**

* Daily maintenance
  + *[Description of maintenance- obtained from vendor; add bullets an sub-bullets for each maintenance activity]* 
    - $*[dollar amount for maintenance/ repair- obtained from vendor]*
    - *[number of man-hours required- obtained from vendor]* man-hours
* Monthly maintenance
  + *[Description of maintenance and/or anticipated repair/replacement- obtained from vendor; add bullets and sub-bullets for each maintenance activity]* 
    - $*[dollar amount for maintenance repair/replacement- obtained from vendor]*
    - *[number of man-hours required- obtained from vendor]* man-hours
* Quarterly maintenance
  + *[Description of maintenance and/or anticipated repair/replacement- obtained from vendor; add bullets and sub-bullets for each maintenance activity]* 
    - $*[dollar amount for maintenance repair/replacement- obtained from vendor]*
    - *[number of man-hours required- obtained from vendor]* man-hours
* Semi-annual maintenance
  + *[Description of maintenance and/or anticipated repair/replacement- obtained from vendor; add bullets and sub-bullets for each maintenance activity]* 
    - $*[dollar amount for maintenance repair/replacement- obtained from vendor]*
    - *[number of man-hours required- obtained from vendor]* man-hours
* Annual maintenance
  + *[Description of maintenance and/or anticipated repair/replacement- obtained from vendor; add bullets and sub-bullets for each maintenance activity]* 
    - $*[dollar amount for maintenance repair/replacement- obtained from vendor]*
    - *[number of man-hours required- obtained from vendor]* man-hours
* Non-annual maintenance
  + *[Description of maintenance and/or anticipated repair/replacement- obtained from vendor; add bullets and sub-bullets for each maintenance activity]* 
    - $*[dollar amount for maintenance repair/replacement- obtained from vendor]*
    - *[number of man-hours required- obtained from vendor]* man-hours
* Replacements
  + *[Major component replacements expected to occur at least once within the useful life of the item that is not related to maintenance activities- obtained from vendor; add bullets and sub-bullets for each component ]*
    - Replaced *after [number of years- obtained from vendor]* years
    - $*[dollar amount of component- obtained from vendor]*
    - *[number of man-hours required- obtained from vendor]* man-hours

**Disposal Costs**

* $*[dollar amount- can be obtained from vendor]*