**Cost Variance Report**

Description: Earned Value Performance report, which provides an overview of the financial performance for the project or work package. This report shows the costs and variances for projects for the current period, life-to-date, and for the entire life cycle of the project. The projects can be drilled down to more accurately display the costs associated to specific PEPCC elements or work packages.

Parameters:

* Period – Selects which month-end data to run the report for
* Last Period – Selects which month-end data to compare columns to (CPI, CPI Driver over period, Period EAC)
* Report Grouping – Selects how to present the information in the report
  + Projects – Shows information grouped by Project
  + Work Packages – Used to display only work packages.  
     (Ideal for Excel Export and manual sorting when combined with # of Projects = “All”.)
* Performance Group – Determines to show the top positive or negative performers
* # of Projects to Show – Determines how many projects to show on output
* Program – Selection of Programs
* Bundle – Filter the cost report by Bundle (Relies on Program parameter)
* Unit – Filters the report by Units (Relies on Bundle parameter)
* Project – Filters the report to specific projects. (Relies on Bundle and Unit parameters)
* Vendor – Filters on specific vendors (Relies on Project parameter)
* Include Interest? – Either includes or excludes Work Package “INT” (Interest) from the output
* Include Contingency? – Either includes or excludes Work Package “CGY” (Contingency) from the output

| **Column** | **Sub-Column** | **Description** |
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|  | Line # | Value used to reference distinct line items in the report for easy speaking points. |
|  | Bundle | Work Breakdown Structure (WBS) Bundle value. |
|  | Description | This field can represent one of three elements depending on the level of drill down.   * Project Number and Project Title * PIEPCCC Element * Work Package Number and Description |
| **Cumulative (Life-To-Date)** | Plan (TB) | Planned value describes how far along a project is supposed to be at any given point in its schedule. Planned value is the established baseline against which the actual progress of the project is measured. This baseline is often changed to reflect changes that occur as a result of re-evaluations of a project’s scope, cost or schedule. |
| Actual (AC) | Actual cost, also known as actual cost of work performed (ACWP) is an indication of the level of resources expended to achieve the actual work completed to date. If actual cost exceeds earned value, the cost for that aspect of the project was higher than anticipated. |
| Cost Variance to Plan | Cost variance is used to determine whether a project is above or below the anticipated budget. A positive variance is favourable, meaning they are under budget, a negative variance unfavourable, meaning they are over budget. Cost Variance is Calculated as follows:  Cost Variance = Life to Date Actual – Life to Date Target Budget  ***Note:*** *A Negative value represents Positive Performance* |
| CPI Variance Driver | This value represents the variance in Earned Value to Actuals. It only accounts for Deliverable Based Work Packages and Level of Effort work packages as those are the only ones that affect CPI.  = Life to Date Earned Value – Life to Date Actual |
| CPI Total | This measures how efficiently a project team is using its money. A quotient below 1 may indicate that not enough money was allotted for the specific project, or that the money is not being used as efficiently as expected. A quotient above 1 may indicate that too much money was given for the project, or that the money is being used more effectively than expected. A CPI that deviates too far from 1 indicates inaccurate planning regarding the cost and scope of the project in question. CPI is calculated as follows: |
| [Last Period] CPI | Displays the CPI value for the line item for the period selected in the [Last Period] parameter. By default, it shows last months data. |
| CPI Driver Over Period | This value represents the variance in Earned Value to Actuals over the period selected. It only accounts for Deliverable Based Work Packages and Level of Effort work packages as those are the only ones that affect CPI.  = Current Period Life to Date Earned Value – Current Period Life to Date Actual - (Last Period Life to Date Earned Value – Last Period Life to Date Actual)  Current Period represents the [Period] chosen from the parameter.  Last Period represents the [Last Period] chosen from the parameter. |
| **Life Cycle** | Plan (OB) | The Original Budget is the initial approved budget of the project. |
| Plan (TB) | The Target Budget is the Original Budget + Direct Changes + Non-Directed Changes.  Direct Changes are PCA's (Project Change Authorization) which are OPG directed changes to scope. Non-Directed Changes are CTP's (Consent To Proceed) which are Contractor forecasts that exceed cost targets. |
| ETC (Estimate to Complete) | Remaining forecasted cost to finish the line item. |
| EAC  (Estimate At Completion) | Actual cost spent to date plus the remaining forecasted spenditure.  = Life to Date Actual + Estimate to Complete |
| Target Forecast | Custom Management Forecast that was taken in January 2018 with some manual management changes. |
| [Last Period] EAC | Estimate at Completion (Forecast value) for the previous snapshot (Month). |
| Variance  to EAC | The difference between the Target Budget and the Forecast for the line item.  = EAC (Estimate At Complete) – Plan (Target Budget)  ***Note:*** *A Negative value represents Positive Performance* |
| Variance  to Target Forecast | The difference between the management Target Forecast from January 2018 and the current Forecast for the line item.  = EAC (Estimate At Complete) – Target Forecast  ***Note:*** *A Negative value represents Positive Performance* |
| Variance to EAC over Period | The change in estimate at completion (forecast value) from date selected in the Last Period Parameter to this month.  = EAC (Estimate At Complete) – [Past Period Parameter] EAC |

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| **Data Source** | **NPDW\_REPORT** - Data Source(s)  tableview1: dbo.SNAPSHOT\_MSBI\_WBS\_EXTRACT  tableview2: eic.fact\_0320a\_WPTimePhase\_Monthly |
| **Achievements** | Identifies potential issues in the cost data by work package. |