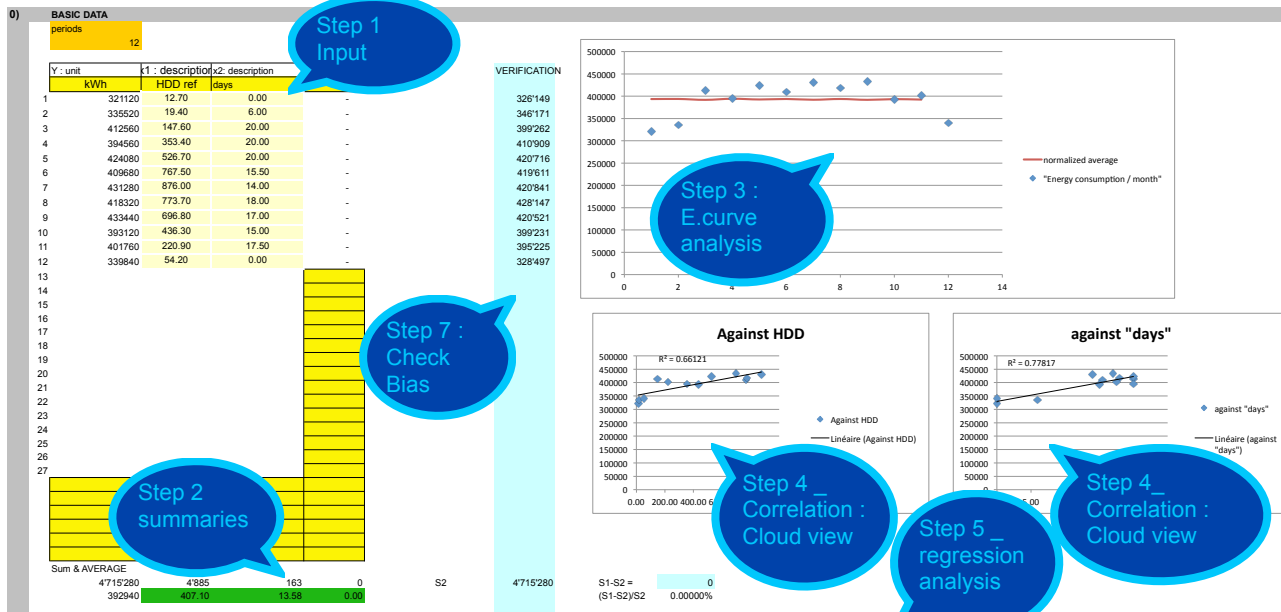




REGRESSION

EQUATION

$E = 57 * X1 + 3273.853565 * X2 + 325428.7839$

Step 6 : analyse output model

PREDICTED VALUES VERIFICATION

SUM Errel - Sum Em = 4715280 - Sum(EQUATION) = 0

INDEPENDANT VARIABLE SENSITIVITY AN. :

days	HDD ref
6.32	4.71

MODEL STANDARD ERROR

10487.65494

REGRESSION CRITERIA R2 / CV(RMSE)

0.55 > 0.75

0.92659022

SAVINGS UNCERTAINTY

Guaranteed SAVINGS on the POST REPROFIT period : 12 reports > 1603195.2 Savings in% **34%**

Average savings : 133599.6

Savings standard error

$E_{tg} = (E_{te}^2 + E_{tspuiv}^2)^{0.5}$

$E_{tg} = (10487.65494^2 + 0^2)^{0.5} = 10487.65494$

Absolute uncertainty on savings for each report n:

$labsgm = (I^* E_{tg})$

number of independent variables : 2

confidence level : 90%

report number : 12 => 1.83

10487.65 * 1.83 = 19225.06

Summed prediction standard error :

$E_{tpot} = E_{te} * 2^{(n-1)/2}$ 5 assumption that standard error identical for each reported period of B-16 IPMVP

10487.65 * 1.83 = 19225.06

Period absolute uncertainty :

$labsP_{suiv} = (I^* E_{tpot})$

36330.30 * 1.83 = 66597.55

Relative uncertainty on guaranteed savings

$lgrel = labsP_{suiv} / Gain$

66597.55 / 1603195.2 = 4.15%

Step 5

Step 4 Combine

Step 5 : Expand (with t)

SAVINGS UNCERTAINTY (ASHRAE SIMPLIFIED)

Step 6 Evaluate

$U = t^* 1.26 * CVRMSE / F * ((n+2)/(n^3))^{0.5}$

$U = 1.83 * 0.033629677 / 34\% = 0.311804782$

Relative uncertainty on guaranteed savings

$U = 0.311804782$

Step 6 : Evaluate, double check

Step 7 : Report in the Main document M&V Section 5 Expected Accuracy