

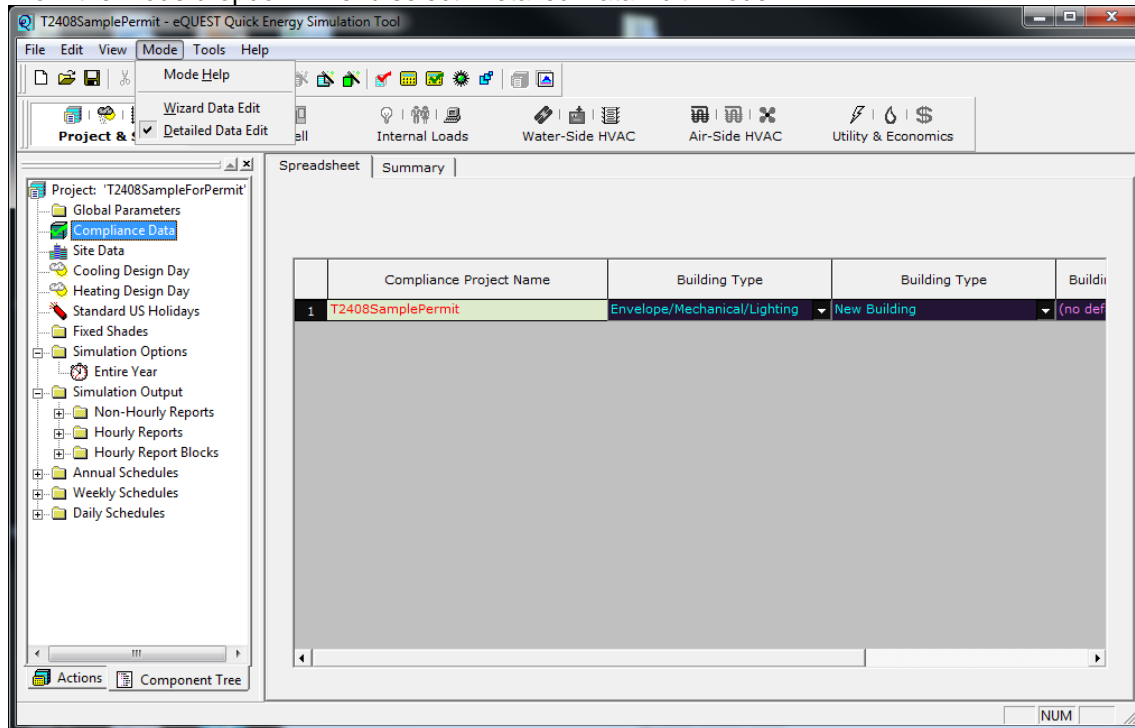


How to Select and Use  
Belimo Pressure Dependent Pump Curves  
on eQuest

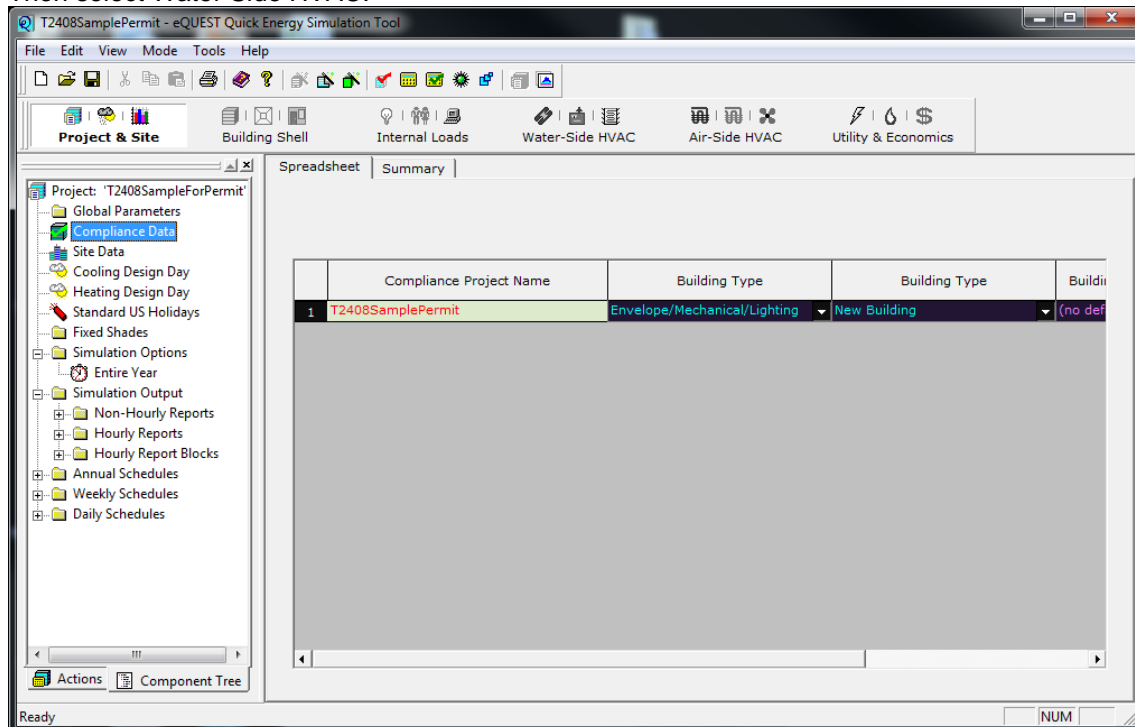


# 1 Open a project on - eQUEST Quick Energy Simulation Tool

To add the Belimo pressure dependent pump curves to the project follow these instructions:  
From the Mode dropdown menu select "Detailed Data Edit" mode.

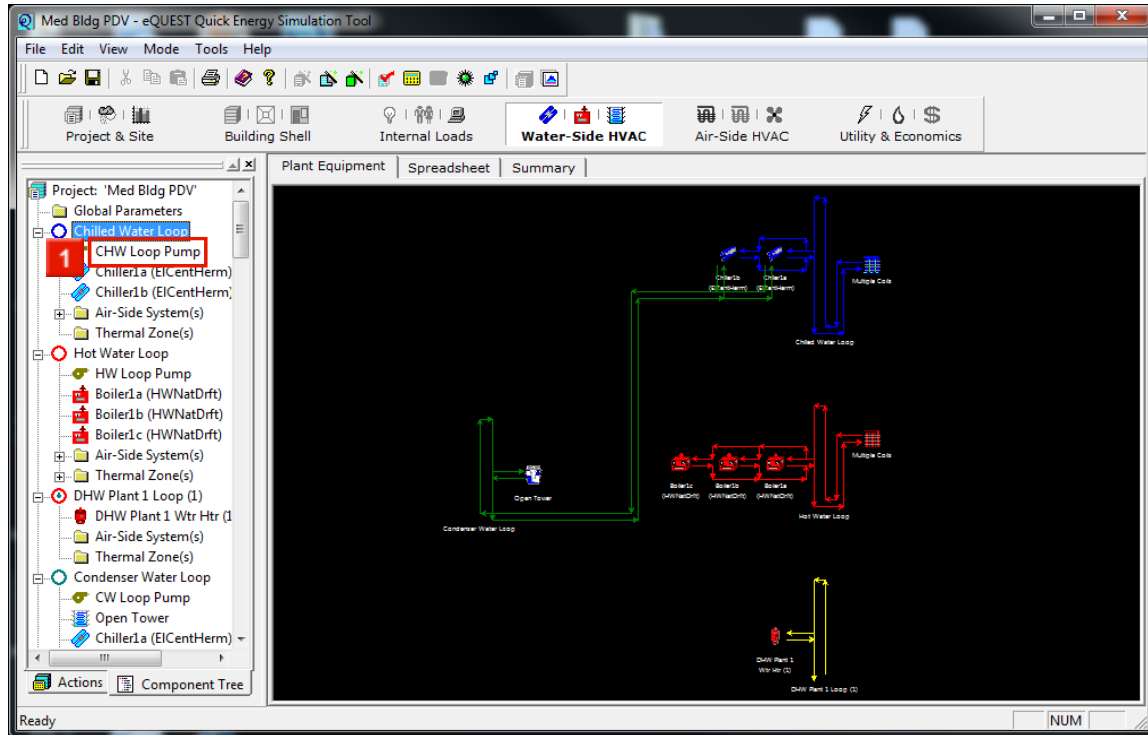


Then select Water Side HVAC:

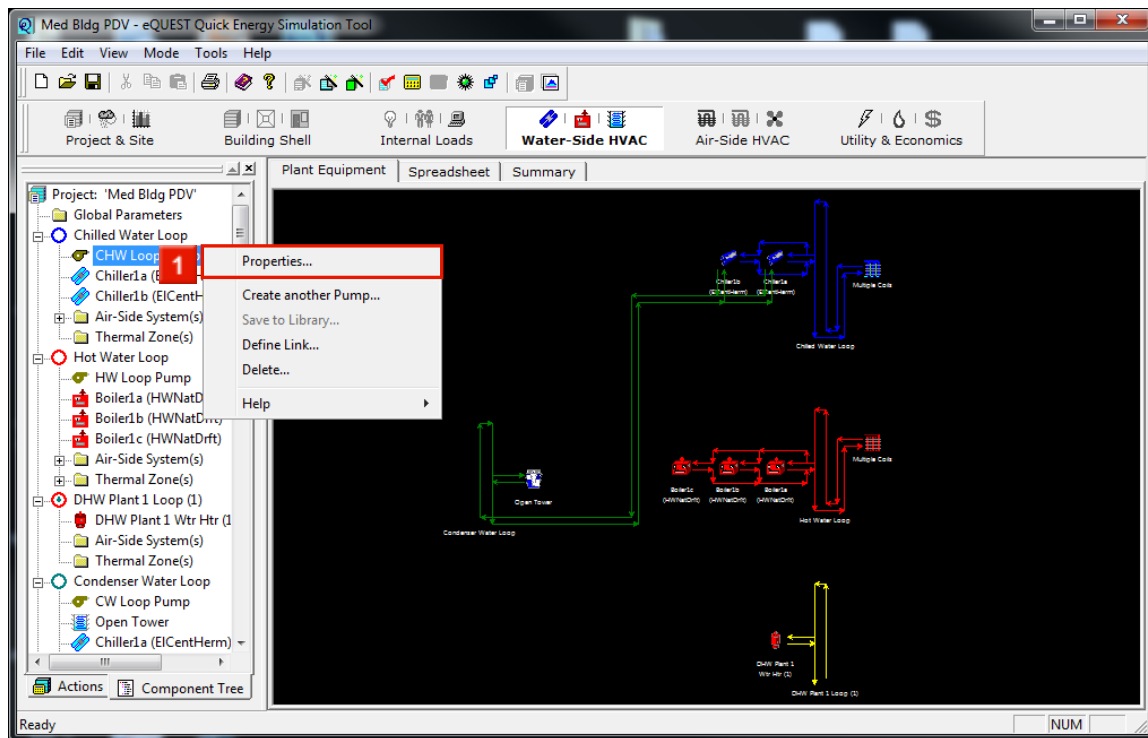




Once the basic building is created. On the component tree select CHW Loop pump:



**1** Right-click the **CHW Loop Pump** tree entry.



**1** Then Click **Properties...**

## 2 Pump Properties

Pump Properties

Currently Active Pump: **CHW Loop Pump**

Basic Specifications

Pump Name: **CHW Loop Pump**

Number of Pumps: **1**

Head (per pump):  ft

Flow (per pump):  gpm

Head Ratio: **1.20** ratio

Flow Ratio: **1.00** ratio

Max Pump Ratio: **1.30** ratio

Head Setpoint:  ft

Head Setpoint Ratio:  ratio

Pump Head f(flow): **Pump-Head-fFlow**

Pump Power f(flow): **1 Pump-Power-fFlow**

Pump Pwr Exponent: **library**

Electric Meter: **EM1**

Pump Power:  kW

Motor Efficiency: **0.90** ratio

Mech Efficiency: **0.77** ratio

Minimum Speed: **0.40** ratio

Motor Class: **n/a**

Capacity Control: **Variable Speed Pump**

Compliance Inputs

Motor Type: **Standard Efficiency**

Enclosure Type: **Open**

Motor Speed: **1800 rpm**

Drive Efficiency: **1.000** ratio

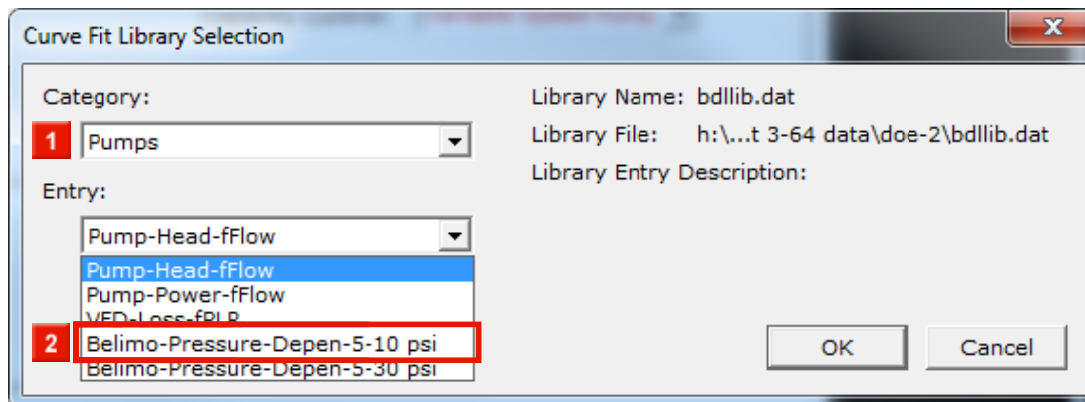
Nominal HP:  hp

Brake HP:  hp

Done

**1** Select Pump Power f(flow) and then select **library**

### 3 Curve Fit Library Selection

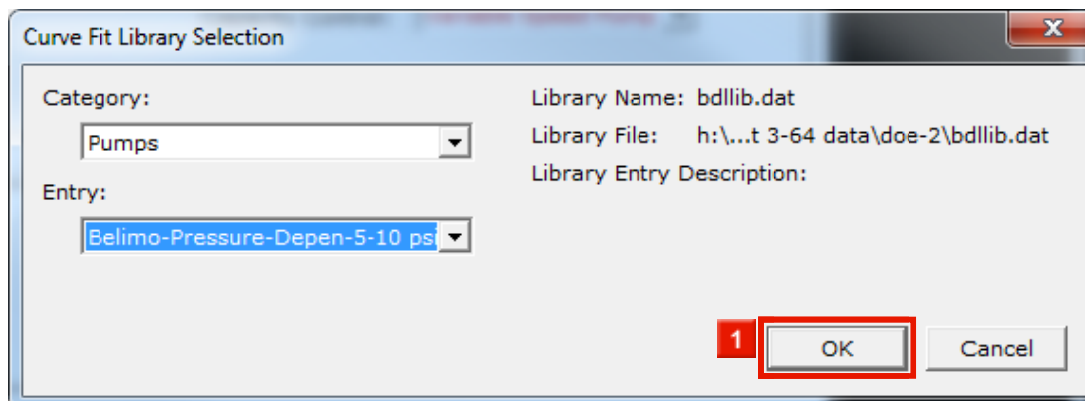


**1** Open the dropdown menu under Category and select the **Pumps**.

**2** Open the dropdown menu under Entry and select the **Belimo-Pressure-Depen-5-10 psi**.

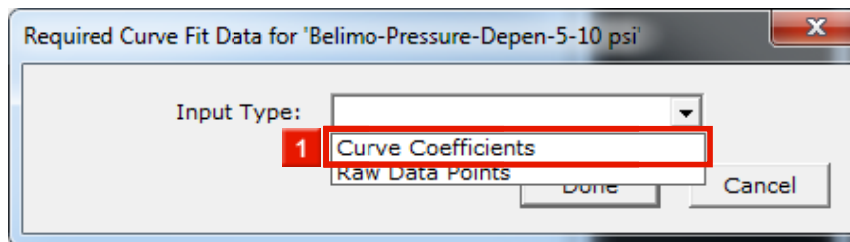
**i** Select Belimo-Pressure-Depen-5-10 if you are modeling a new building.

**i** Select Belimo-Pressure-Depen-5-30 if you are modeling an existing building.

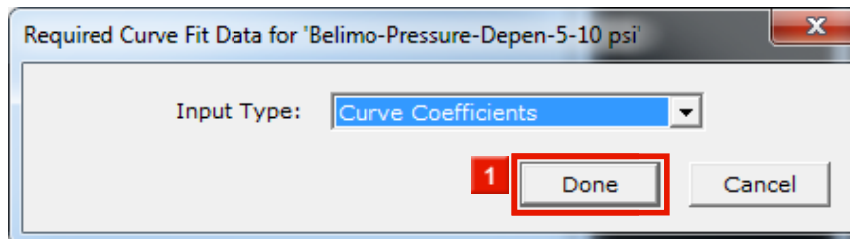


**1** Click **OK**.

#### 4 Required Curve Fit Data for 'Belimo-Pressure-Depen-5-10 psi'



**1** Under Input Type select **Curve Coefficients**.



**1** Click **Done**.

## 5 Pump Properties

Pump Properties

Currently Active Pump: **CHW Loop Pump**

Basic Specifications

Pump Name: **CHW Loop Pump**

Number of Pumps: **1**

Head (per pump):  ft

Flow (per pump):  gpm

Head Ratio: **1.20** ratio

Flow Ratio: **1.00** ratio

Max Pump Ratio: **1.30** ratio

Head Setpoint:  ft

Head Setpoint Ratio:  ratio

Pump Head f(flow): **Pump-Head-fFlow**

Pump Power f(flow): **Belimo-Pressure-Dependent**

Pump Pwr Exponent: **3.05** ratio

Electric Meter: **EM1**

Pump Power:  kW

Motor Efficiency: **0.90** ratio

Mech Efficiency: **0.77** ratio

Minimum Speed: **0.40** ratio

Motor Class: **n/a**

Capacity Control: **Variable Speed Pump**

Compliance Inputs

Motor Type: **Standard Efficiency**

Enclosure Type: **Open**

Motor Speed: **1800 rpm**

Drive Efficiency: **1.000** ratio

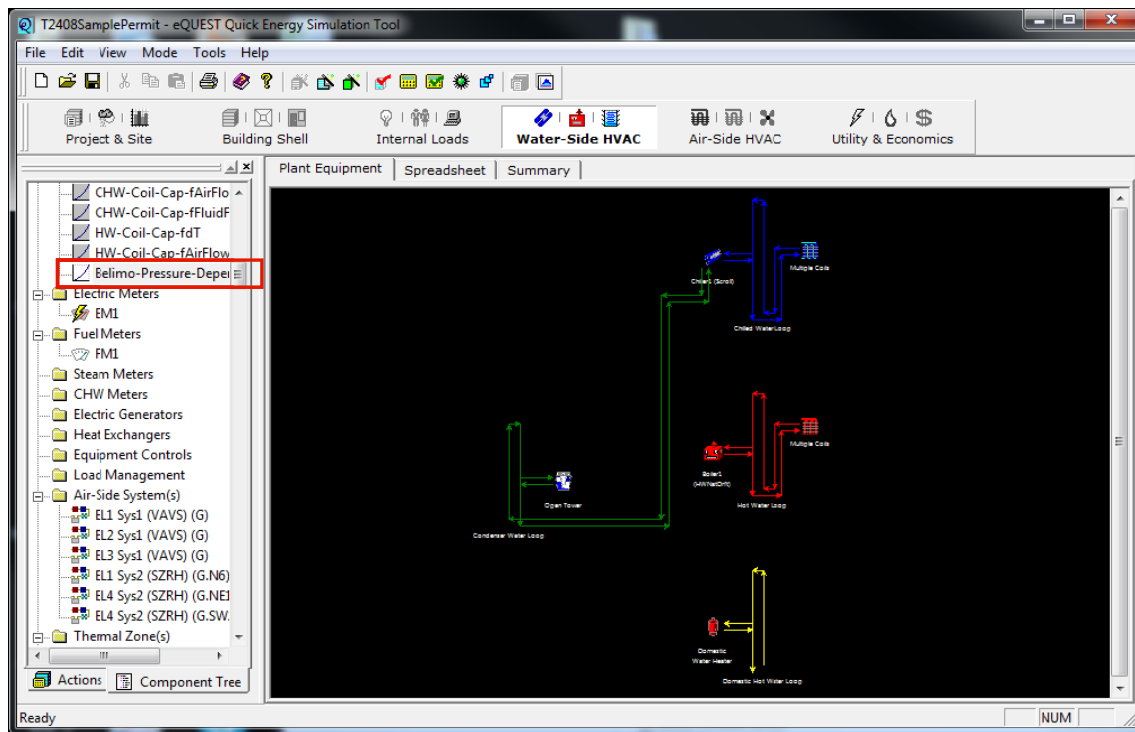
Nominal HP:  hp

Brake HP:  hp

**1** Done

**1** Click **Done**.

## 6 eQUEST Quick Energy Simulation Tool



The curve is now listed in the performance curves and can be selected for further use on the pumps if needed



Please run the model again using the Belimo pressure dependent pump curves and compare it to the base model to see the pump savings.