Energy Forecast

- General presentation
  - Objective of the application
  - Usage information
  - History
- Roles & Access
  - Roles and access
  - Authorization variables
- Dataflow overview
    - GBU Novecare
    - Energy Automation
    - GBU SP
  - Functional and Technical rules on Workbench + Reporting
  - Rules & Explanations
  - Dependencies with other applications
- Data loadings
  - Info providers and objects loaded
  - Loading frequency
  - Average performance
  - Record Keeping
- Reporting
  - Queries End User Documentation
  - Main queries
  - Main functionalities
  - Broadcast
- Maintenance
  - Known bugs
  - Recurring procedure
  - Planned Evolution

General presentation

Objective of the application

Energy Forecast prices are collected in a BW-IP workbook and then integrated in Manufacturing VC query to calculate the Energy cost for projected months.

Usage information

History

Roles & Access

Roles and access

List of application role + menu role and explanation if we have several applications role with specials rules.

Role Code	Role Description	Explanation
ZR_RCS_CA_M79	Forward Looking ICM - Energy - Menu	Role Menu
ZBI_RCS_CO_A07	Forward Looking ICM - Energy	Authorization objects

Authorization variables

List of authorization variables mandatory for the application.

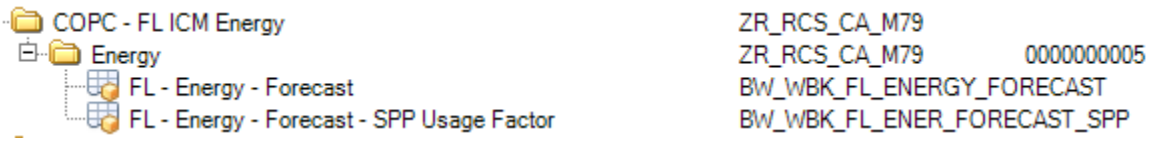
Authorization variables	Object
V_C_AUTHMA_0001	C_PLANT__C_AUTHMA
V_C_PLANT_0012	C_PLANT
V_CPFCTR1_2_0006	CPFCTR1_2

Dataflow overview

Link to dataflow overview diagram:

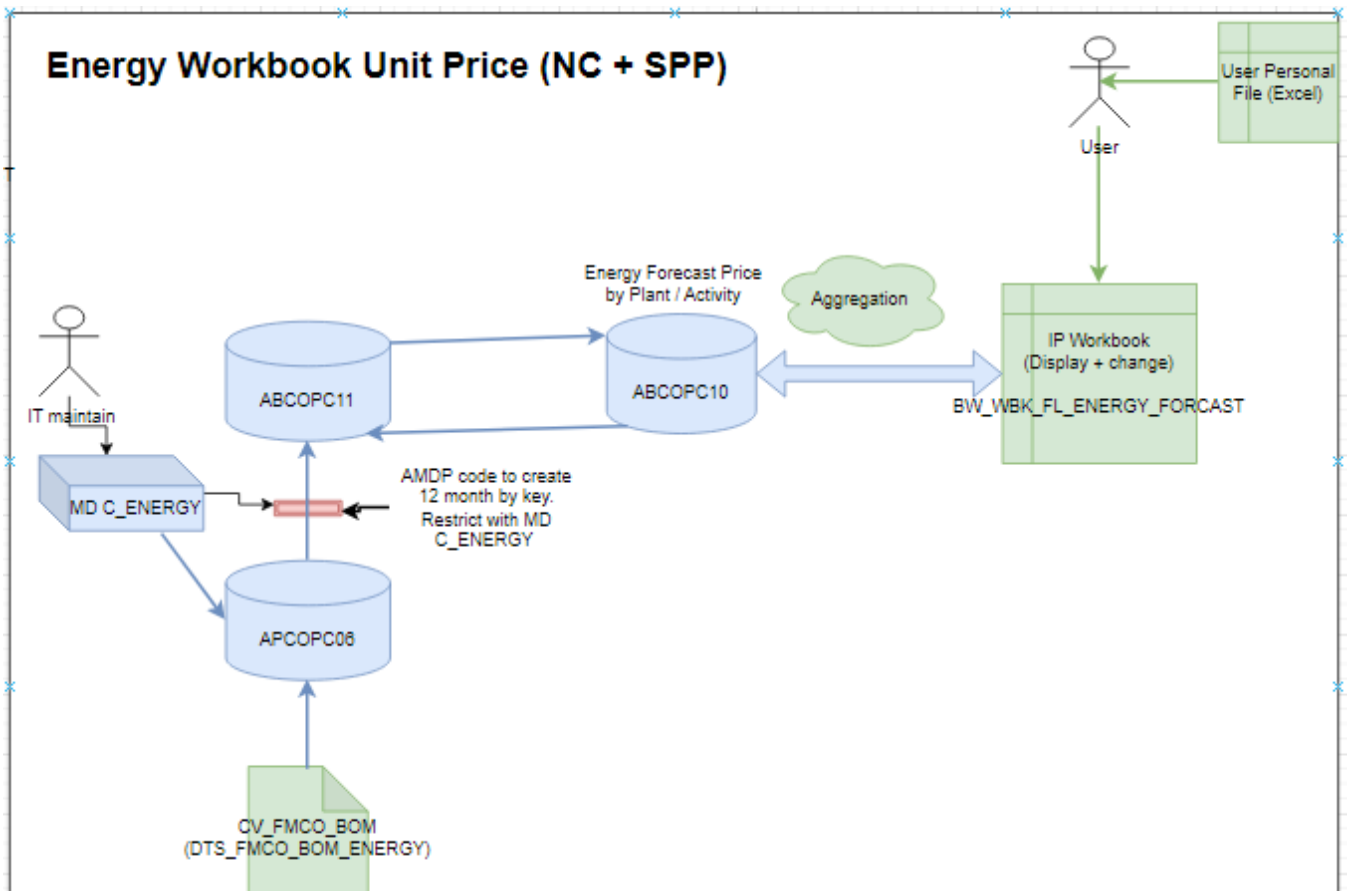
https://app.diagrams.net/#G1RLCMm5yN06FOmvBvRN5HOSCk1xwCFtvl

There are **2 workbooks** concerning Energy Forecast:



The first one (**"FL - Energy Forecast")** is common for Novecare and SpP and is used to save **Energy price** typed by the users. This is done by **plant /activitiy** (ELEC, GAS, STEAM, etc)

Energy unit price is stored in DSO ABCOPC10.



GBU Novecare

We get the latest Actual price (current month M) from the BOM, for each plant/activity, to use as **proposed price** in the workbook for future (M+12) months. Then the user can change the prices and save.

Energy Automation

A change was requested to improve the process for Novecare (and other WP1 GBUs like TS and PA).

As the prices sent by Corporate are not reflecting the same process used by plant controllers, it has been decided to implement a **% increase** to standard cost instead.

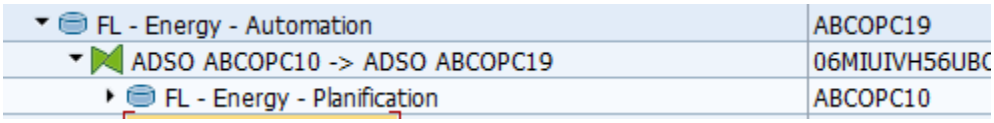
A formula will automatically calculate the % trend of the unit price between each month in the workbook.

Example of the calculation:

https://docs.google.com/spreadsheets/d/1F8YPA5tVAw-hieDyODLhQwQNnKJOt-vxsoe3ezu4gGU/edit#gid=0

So the prices saved by Corporate in the workbook are stored in ABCOPC10.

And a new DSO ABCOPC19 is loaded from ABCOPC10, and the % increase calculation is applied in TRF below



Then ABCOPC19 is integrated in CV_FMCO_MAN_COST_RCS.

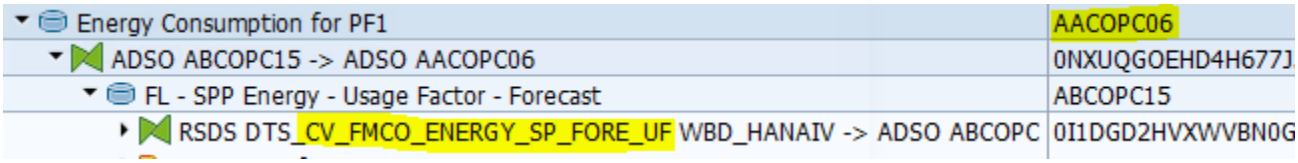
No more lag is applied, meaning the Forecast for month M takes directly the price from month M, Forecast for M+1 takes the price from M+1, etc.

GBU SP

There is no proposed price because **we don't have this level of detail (by activity type) in the BOM in PF1.** So we load from the BOM only the plants, then the activities are "artificially" created in BW from the values in master data C_ENERGY, and then the user can input the prices.

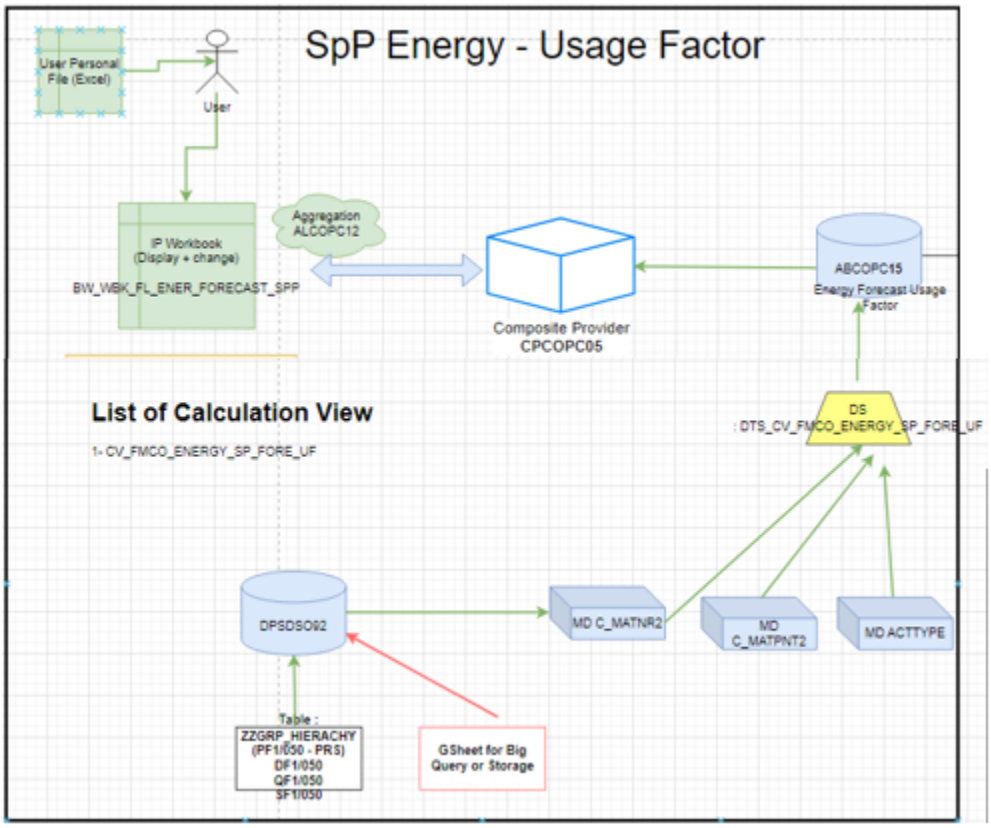
Currently the only activities loaded in the Unit price workbook for GBU SP are ELEC, GAS, STEAM.

This is filtered in CV_FMCO_ENERGY_SP_FORE_UF into AACOPC06 (used as lookup in TRSF: APCOPC06 -> ADSO ABCOPC11)

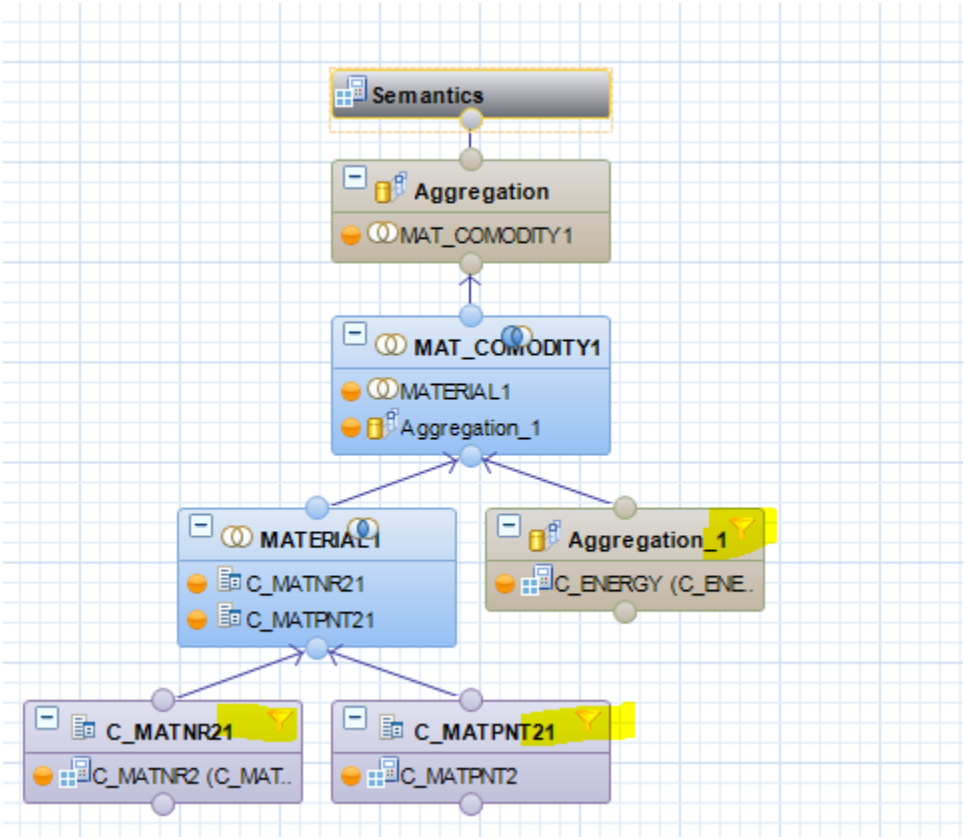


As for SpP, there is no detail coming from SAP for "Utilities" (just an aggregated cost), there is this specific process covered by the second workbook **("FL - Energy Forecast - SPP Usage Factor)** where the users save the **usage factor by plant/H4/product hierarchy.**

Actually this is where the Energy Forecast process starts for SpP.



1) Calculation View : CV_FMCO_ENERGY_SP_FORE_UF



This calculation view will generate all the combinations **Plant/H4/Prod.Hierarchy/Activity** to be loaded in **ABCOPC15.**

Filters:

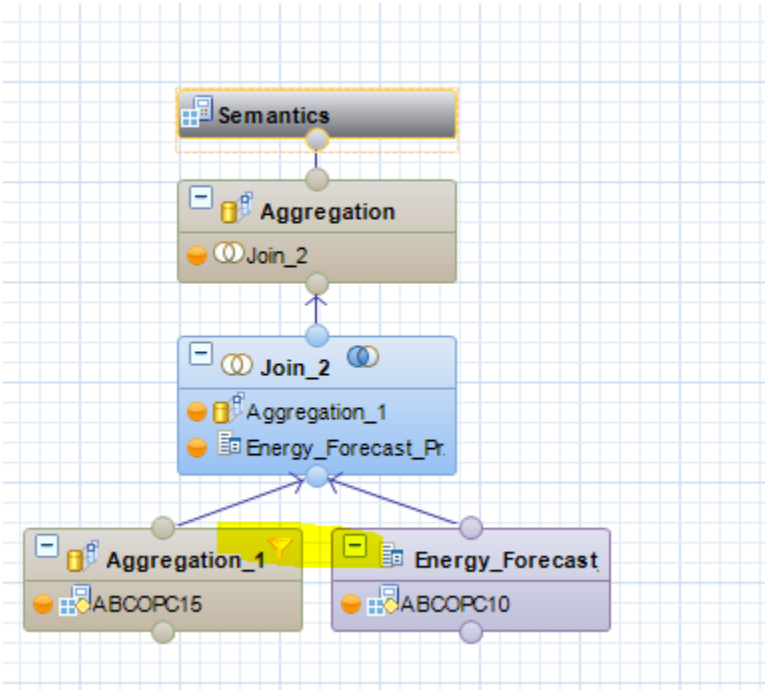
1- All Material with product Hierarchy : ("0PROD_HIER" != '')

2- GBU "CPFCTR1_2" = 'SP'

3- "C_ENERGY" = 'ELEC', 'GAS', 'STEAM', 'OTHER'

After data is loaded in **ABCOPC15**, then it's used in CV below to calculate the Energy Cost (quantity from ABCOPC15 * price from ABCOPC10)

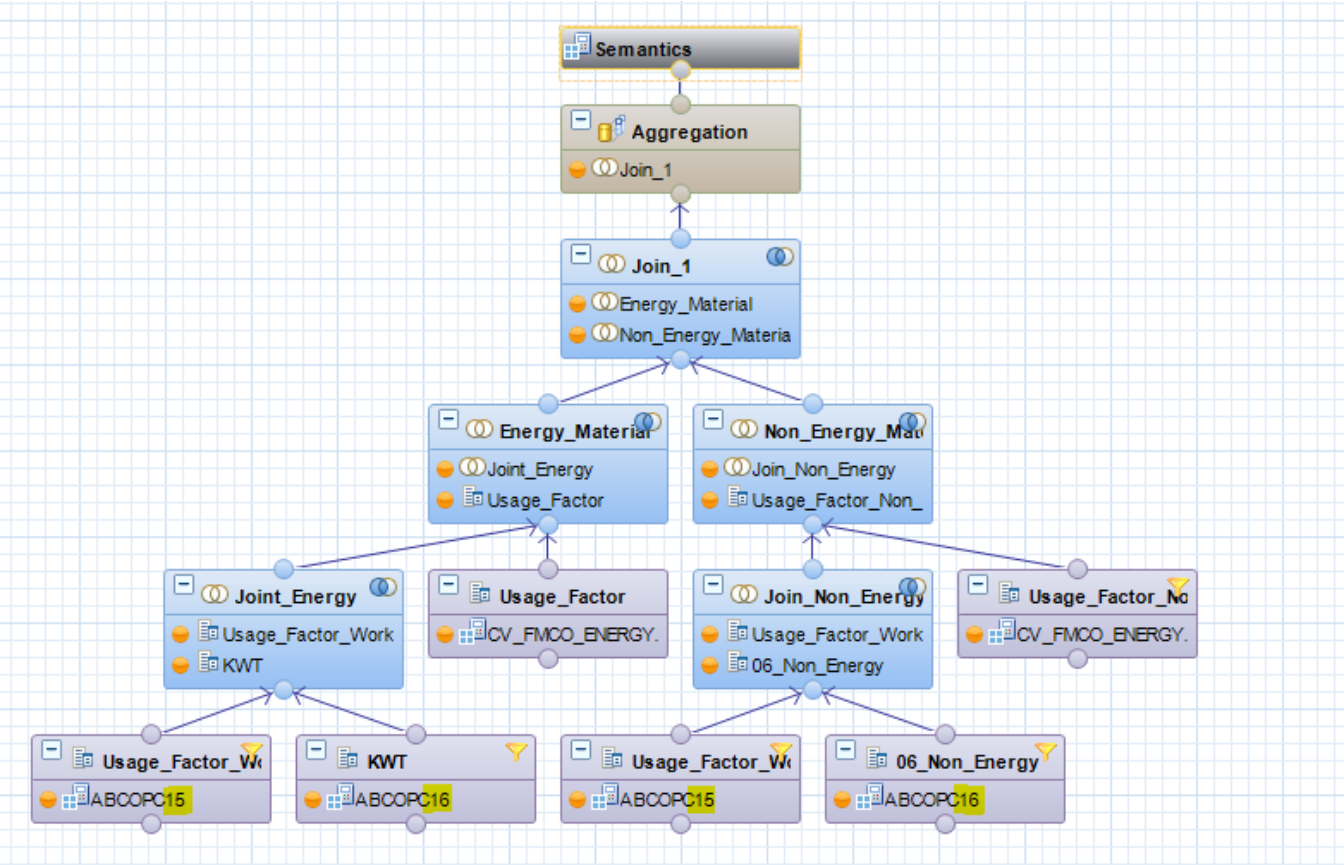
2) Calculation View : CV_FMCO_ENERGY_SP_FORE_UF2



This will be loaded into **ABCOPC16**, where the **increase percentage** (K_STDINCR) is calculated (comparing current month x previous month).

Then ABCOPC16 is used in following CV

3) Calculation View : CV_FMCO_ENERGY_SP_FORE_UF_CALC



Then this CV is used in the following one:

4) Calculation View : CV_FMCO_MAN_COST_SPP_AVERAGE

Which is used in **TRSF: DTS_CV_FMCO_MAN_COST_SPP_AVR WBD_HANAIV -> ABCOP06B**

Link to project folder:

Functional and Technical rules on Workbench + Reporting

Rules & Explanations

Dependencies with other applications

Data loadings

Info providers and objects loaded

1- DSO DPSDSO92 : for having H4 Code (PC_FIWC_02)

2- DSO ABCOPC15 : for the Usage Factor (PC_COPC_09)

3- DSO AACOPC06: source data for Unit Price workbook (PC_COPC_09)

4- Make sure that the master data C_ENERGY is fulfilled correctly (ELEC/KWH, GAS/KWH and STEAM/TO)

5- Be sure that the DSO ABCOPRIC is loaded (PC_COPC_BOM_PF1)

6- DSO ABCOPC16 : for the integration in Manufacturing (PC_COPC_MAN_COST)

7- DSO ABCOP06b : to load Manufacturing cost for SpP (PC_COPC_MAN_COST)

So we have 4 process chain :

PC_FIWC_02

PC_COPC_09

PC_COPC_BOM_PF1

PC_COPC_MAN_COST

Loading frequency

Average performance

Key Figure	Estimation
~ Average Process Chain Runtime	
~ Average nb of rows loaded per load	
~ Total nb of rows loaded (if full)	
~ Average Runtime for 10k lines	

Record Keeping

Reporting

Queries End User Documentation

Main queries

Main functionalities

Broadcast

Maintenance

Known bugs

Recurring procedure

Planned Evolution