



ROsmose - 2

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1. How can you evaluate utility integration for your process using ROSMOSE



- A** Preview “frontend_MER.qmd” file with only your process ET in the OSMOSE SOLVE chunk.
- B** Preview “frontend_TotalCost.qmd” file with your process ET and selected utilities in the OSMOSE SOLVE chunk.
- C** Preview “frontend_TotalCost.qmd” file with only your process ET in the OSMOSE SOLVE chunk.
- D** Read the ROSMOSE tutorial section in the example guide book.
- E** None of the options



2. How do you know which utilities you need to connect to your process



- A** I plug and play with the utility examples given in the guidebook
- B** I check the composite curves of my process, define minimum and maximum process temperature levels, and identify suitable utilities without changing any of their parameters.
- C** I put one hot and one cold utility only.
- D** I check the composite curves of my process, define minimum and maximum process temperature levels, and identify suitable utilities while modifying them to best fit my process.



E None of the options

3. If you run the example “`frontend_TotalCost.qmd`” using only the furnace, cooling tower, and market. What results do you get (considering an electrolyzer size of -50000 kW), with `elec_cost = 0.14 Eur/kWh`, `natgas_cost= 35 Eur/MWh` ?



- A The energy utility OPEX reported is 65 648 483 €/yr.
- B It doesn't compile, I get errors due to insufficient utilities.
- C The energy utility OPEX reported is 39 385 286 €/yr.
- D The energy utility OPEX reported is 38 123 524 €/yr.
- E None of the options

4. If your problem is compiling but OSMOSE is not giving you a solution and you are getting this error: “**Exception: Osmose was not able to solve the optimization.**” You should try to:



- A Send all of your files to a TA to debug for you.
- B First make sure the syntax is correct, you are calling the correct process and utility units in your frontend and then if the error persists use the “OSMOSE SEREALIZE_ET” command to return OSMOSE error files and then check with your TA.
- C Don't report utility integration for your process because it does not work.
- D Change your main process stream requirements to make the utilities match.
- E None of the options

5. Run the example using the furnace, cooling tower, market and steam network superstructure, considering an electrolyzer size of -50000 kW, with elec_cost = 0.14 Eur/kWh, natgas_cost= 35 Eur/MWh. What are the results that you get for the electricity consumption by the cooling tower (CT) and the natural gas (NG) consumption by the furnace?



- A CT: 20.89 kWh ; NG: 258.17 kWh
- B CT: 54.49 kWh ; NG: 258.17 kWh
- C CT: 54.49 kWh ; NG: 412.37 kWh
- D CT: 20.89 kWh ; NG: 412.37 kWh
- E None of the options

Add Blank Question

[Multiple Choice](#)[True / False](#)[Short Answer](#)

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