US412:

As Ship Chief Electrical Engineer, the objective is to know the total energy to be supplied to the set of containers in a certain established trip, assuming that all the containers have the same behavior.

Using the calculations made on the previous user story (US412), we can calculate the needed energy to keep the containers refrigerated at a certain temperature.

Supposing a **trip** takes **2 hours and 30 minutes**, which is equivalent to **9000 seconds**, and the exterior temperature during the trip is **20° Celsius**, we can calculate the energy required for a set of containers.

Suppose now, a boat is loaded with **13200 containers** refrigerated at **7° Celsius** and **10000 containers** are refrigerated at **-5° Celsius** .

Containers refrigerated at 7° Celsius:

$$13200 \times 10.48W = 138336\,W = 138.336\,kW$$

Containers refrigerated at -5° Celsius:

$$10000 \times 15.82W = 158200\,W = 158.200\,kW$$

So, in total, it would be needed:

$$138336 + 158200 = 296536\,W = 296.536\,kW$$