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 - Operational costs
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Scenario input values and assumptions

Calculation for emptycontainerhandlers

Operational assumptions

Currency and units	Euro (EUR) and Litre
Number of years	6
Operating hours per year	3 000 h
Idling time for diesel	24%
Duty class	Light
Interest rate	3.50%

Cost assumptions

Electric energy price	0,20 €/kWh
Electric energy mix	Germany
Diesel price	1,50 €/l
Urea price	1,80 €/l



Equipment models and assumptions

DCG100-45ED7 (Q-19338)



Price	373 000 €
Maintenance cost per hour	13,75 €
Fuel consumption	11,89 l/h
Urea consumption	4 %



TCO Calculation

Equipment models and assumptions

DCG100-45ED7 (Q-19338)



Price	373 000 €
Maintenance cost per hour	13,75 €
Fuel consumption	11,89 l/h
Urea consumption	4 %

ECG110-50ED7 (Q-28094)



Price	609 000 €
Maintenance cost per hour	9,63 €
Energy consumption	40 kW
Battery voltage	666 V
Battery capacity	368 Ah
Charger	175 Kw
Charging current	263 A
Driving time to 80% discharge	4.9 h

Battery usage calculation



TCO Calculation

Cost calculations

Total cost overview

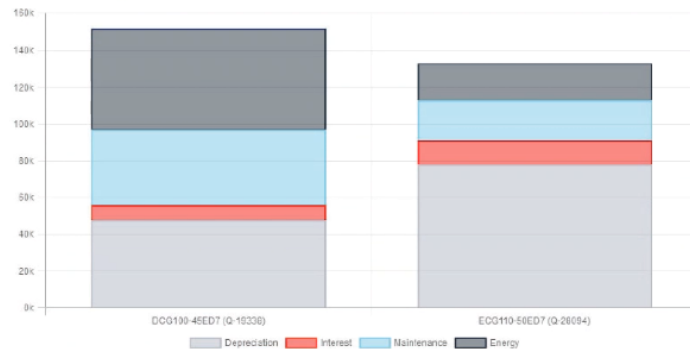


DCG100-45ED7 (Q-19338)

ECG110-50ED7 (Q-28094)

Total cost for 6 years	910 762 €	799 748 €
Total cost per year	151 794 €	133 291 €
Total cost per month	12 649 €	11 108 €
Total cost per hour of operation (incl. idling hours)	50,60 €	N/A
Total cost per hour of operation (excl. idling hours)	N/A	58,46 €

Total cost per year (€)





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TCO Calculation

Fixed costs

	DCG100-45ED7 (Q-19338)	ECG110-50ED7 (Q-28094)
EmptyContainerHandler residual value	85 790 €	140 070 €
Depreciation per year	47 888 €	78 155 €
Interest per year	8 029 €	13 109 €
Total fixed cost per year	55 897 €	91 264 €
Total fixed cost per hour of operation	18,63 €	40,03 €

Operational costs

	DCG100-45ED7 (Q-19338)	ECG110-50ED7 (Q-28094)
Operating hours per year	3 000	2 280
Maintenance cost per hour	13,75 €	9,63 €
Maintenance cost per year	41 250 €	21 956 €
Energy cost per year	54 646 €	20 071 €
Total operation-dependent cost per year (incl. idling hours)	95 896 €	N/A
Total operation-dependent cost per year (excl. idling hours)	N/A	42 028 €
Total operation-dependent cost per hour (of operation incl. idling hours)	31,97 €	N/A
Total operation-dependent cost per hour (of operation excl. idling hours)	N/A	18,43 €



TCO Calculation

Fixed costs

	DCG100.45ED7 (Q-19338)	ECG110.50ED7 (Q-28094)
EmptyContainerHandler residual value	85 790 €	140 070 €
Depreciation per year	47 868 €	78 155 €
Interest per year	8 029 €	13 109 €
Total fixed cost per year	55 897 €	91 264 €
Total fixed cost per hour of operation	18,63 €	40,03 €

Operational costs

	DCG100.45ED7 (Q-19338)	ECG110.50ED7 (Q-28094)
Operating hours per year	3 000	2 200
Maintenance cost per hour	13,75 €	9,83 €
Maintenance cost per year	41 250 €	21 956 €
Energy cost per year	54 646 €	20 071 €
Total operation-dependent cost per year (incl. idling hours)	95 896 €	N/A
Total operation-dependent cost per year (excl. idling hours)	N/A	42 028 €
Total operation-dependent cost per hour (of operation incl. idling hours)	31,97 €	N/A
Total operation-dependent cost per hour (of operation excl. idling hours)	N/A	18,43 €



TCO Calculation

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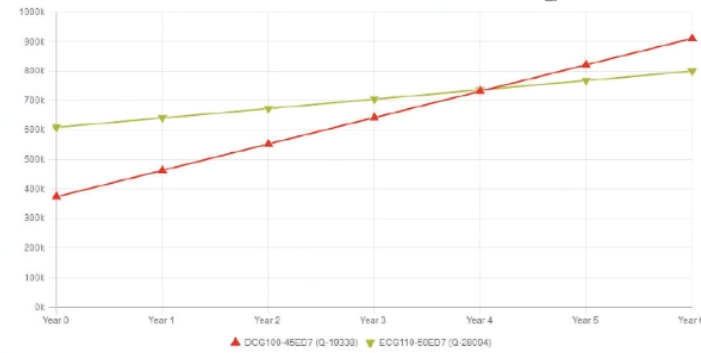
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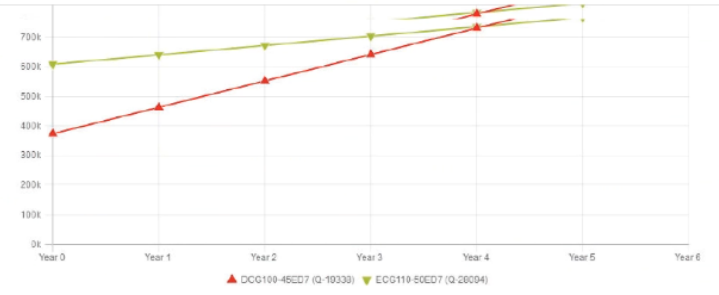


TCO Calculation

Break even graph (€)

The graph shows the accumulated cost of equipment purchase, operating costs and fixed costs minus the residual value at the end of the calculation period.





TCO Calculation

CO2 emissions

CO2 emissions per year (kg)

