

Inclusion of Life Cycle Cost Analysis in the Greener Pumping Toolkit ('New Pump' Scenario)

Greener Pumping Toolkit - NEW PUMP

STEP 1: GENERAL DETAILS

Location

Ireland

Currency

EUR

Default Emission Factor (Source: EEA 2017 CO2 emission intensity of electricity generation)

Emission Factor (available from Electricity provider)

Default Emission Factor

392.53 gCO2/kWh

Emission Factor

gCO2/kWh

Default Electricity Supply Rate (Source: Eurostat 2019/2 Electricity price for non household consumers)

Electricity Supply Rate (available from Electricity provider)

Electricity Supply Rate

Source:
<https://appsso.eurostat.ec.europa.eu/nui/show.do>

0.162 EUR /kWh

Electricity Rate

currency / kWh

Pump Life Expectancy



Pump Manufacturer *

Pump Model *

STEP 2

Greener Pumping Toolkit - NEW PUMP

STEP 2: TECHNICAL DETAILS

Pump Flow Rate (m³/h) *

435.6

Pump Head (m) *

10

Pump Efficiency



Motor Efficiency



Fluid density (kg/m³) *

1000

Power (kWh)

232.87

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[STEP 3](#)

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STEP 3: COST DETAILS

Weekly Pump Usage



Purchase Cost *

14000

EUR

Installation & Commissioning Cost *

1000

EUR

Weekly Operational Monitoring



Labour Cost - Operation *

20

EUR /hour

Maintenance & Repair Cost *

2000

EUR /year

(to include parts, labour and loss of production)

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STEP 3: COST DETAILS

Weekly Operational Monitoring



Labour Cost - Operation *

20



EUR /hour

Maintenance & Repair Cost *

(to include parts, labour and loss of production)

2000



EUR /year

Decommissioning & Disposal Cost *

1000



EUR

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RESULTS

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STEP 4: RESULTS

Investment Cost

15000 EUR

Operation Cost

251987.44480000003
EUR

Maintenance Cost

2000 EUR

End of Life Cost

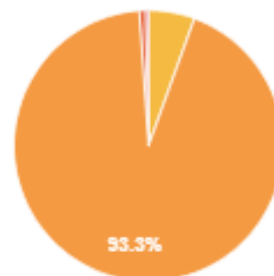
1000 EUR

Total Life Cycle Cost

269987.44480000006 EUR

CO2 (kgCO2)

237,661,998.86



- Investment Cost
- Operation cost
- Maintenance Cost
- End of Life Cost

RESTART