



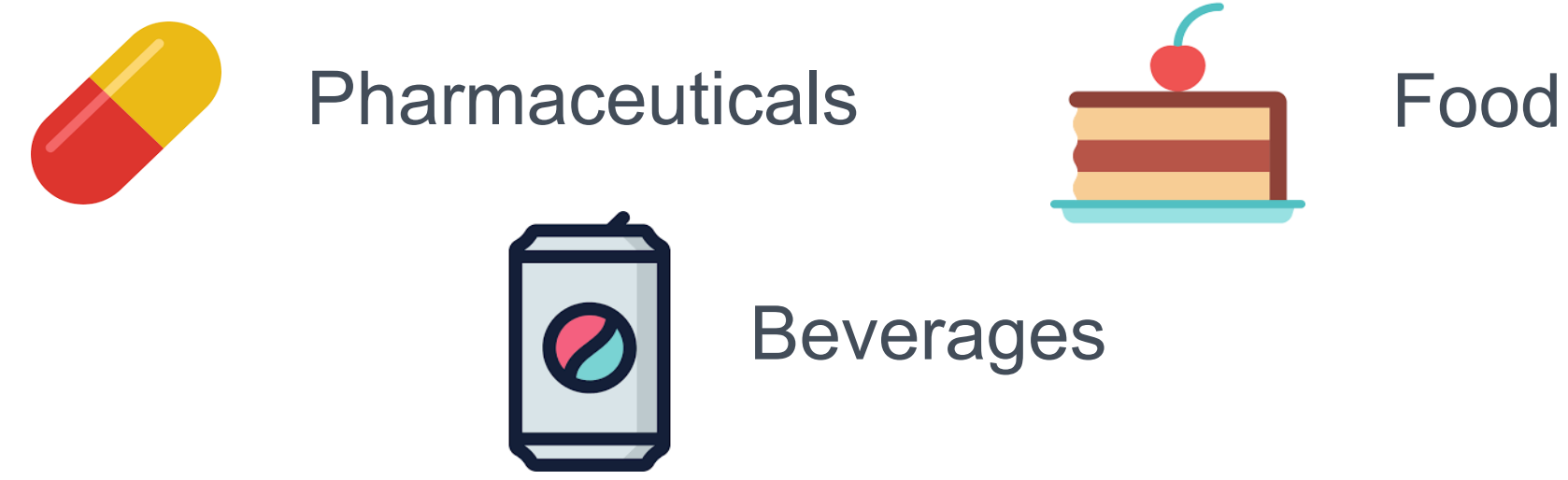
Biosynthesis of Erythritol from Crude Glycerol Using *Yarrowia lipolytica*

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Introduction

Erythritol: Zero calorie sweetener. Can be produced by the yeast *Yarrowia lipolytica* through fermentation

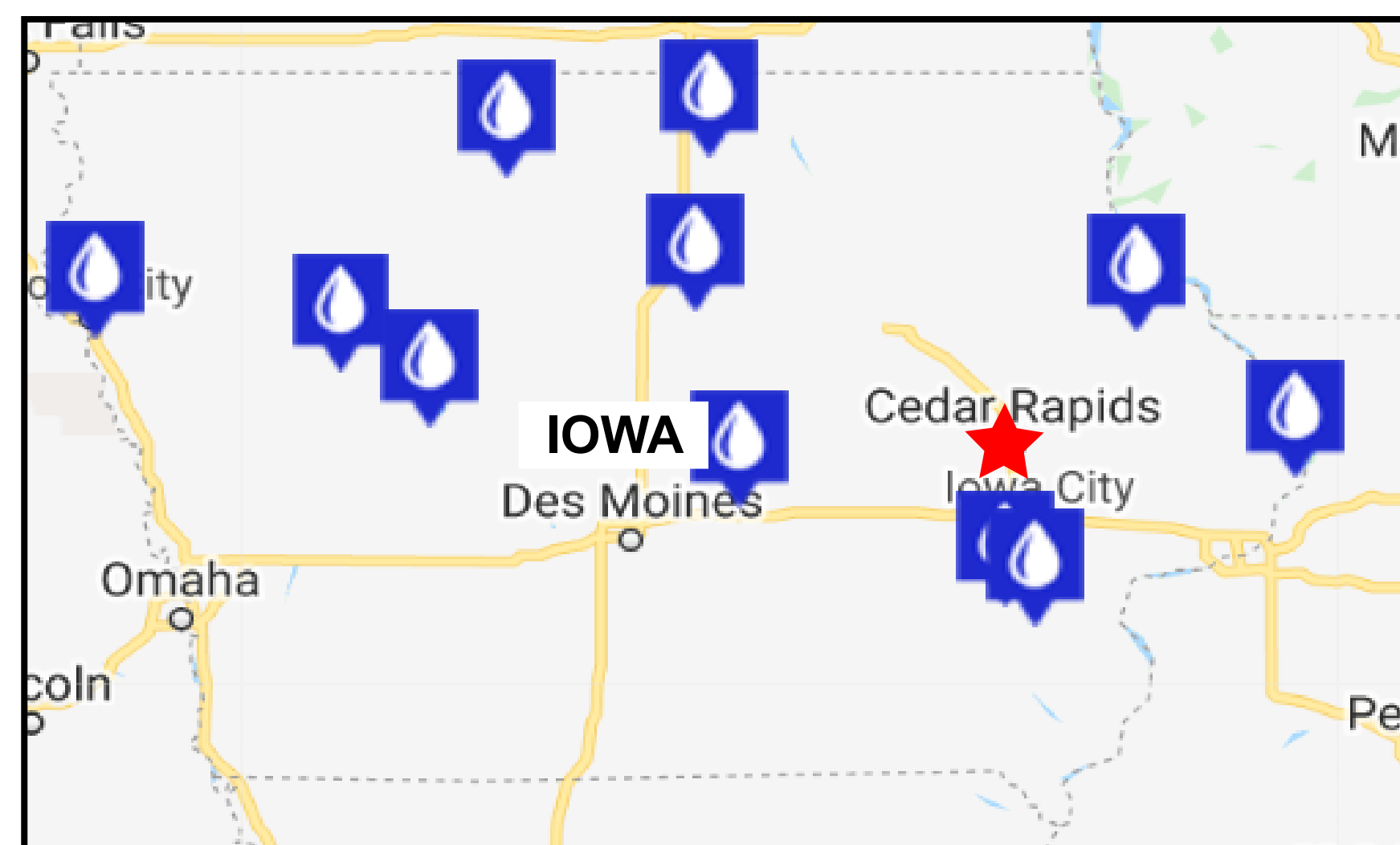
Used in:



Crude Glycerol: Byproduct of the biodiesel industry. A cheaper feedstock than glucose.



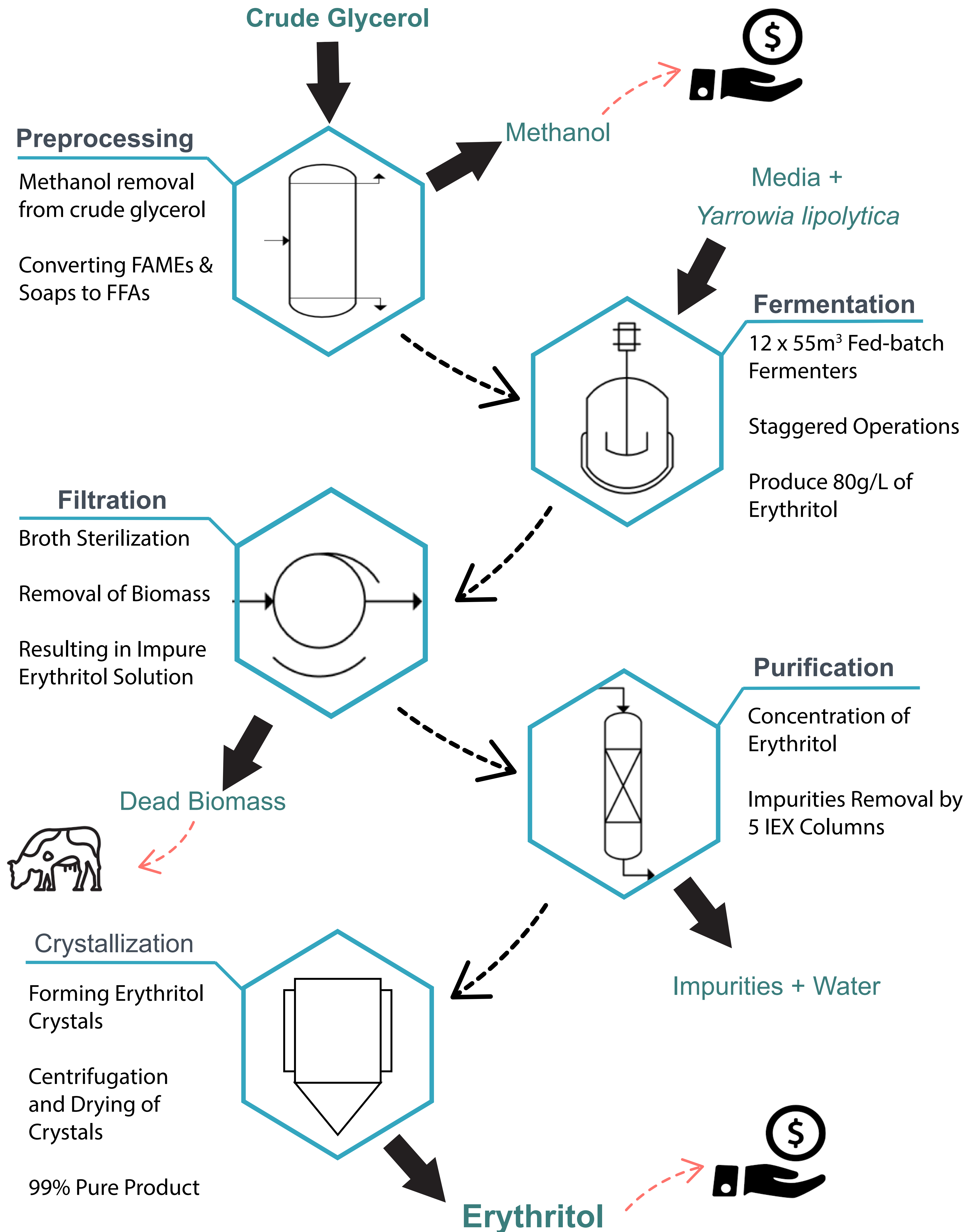
Plant Location



★ Plant Location
43,000 m² Property
Big Cedar Megasite
State of Iowa, USA

Utilities

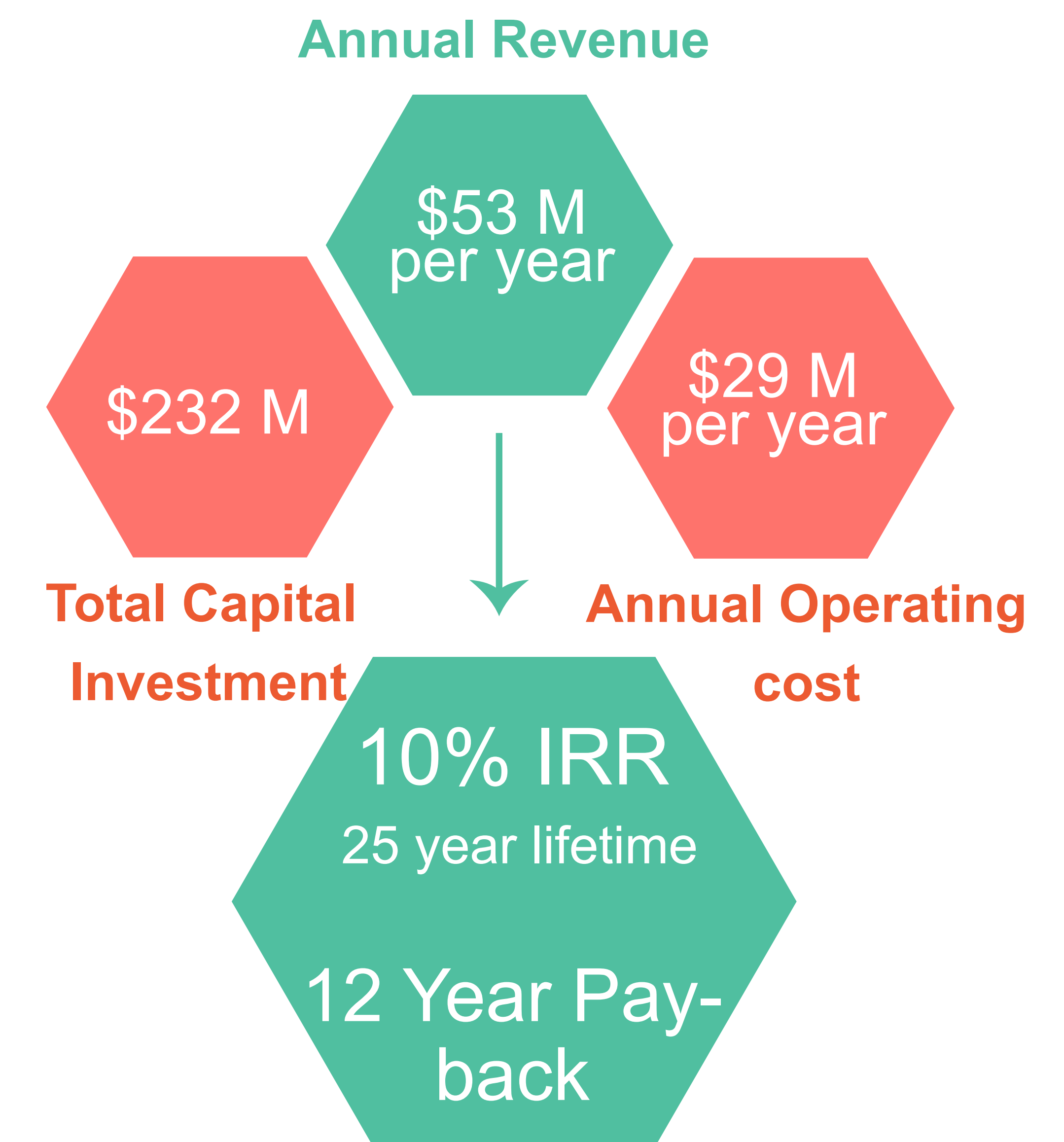
- 114 GWh/year of electricity
- 62 million L/year of cooling water
- 2 million L/year of process water



Mass Balance

In	Out
Crude Glycerol 100 USD/ton 21,000 ton/year	Methanol 359 USD/ton 3,000 ton/year
Water 1 USD/ton 107,000 tons/year	Erythritol 15,000 USD/ton 3,000 ton/year

Economics



Acknowledgements

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