

OMV CASE



BRING SUSTAINABLE FUTURE TOGETHER

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BUSINESS CASE CHALLENGE 2023



SUMMARY

About company

Case Study:
OMV Group

Website:
<https://www.omv.com/en>

Industry:
Oil, gas, petrochemistry and recycling

Employee Count:
22308

OMV is an Austrian multinational integrated oil, gas and petrochemical company which is headquartered in Vienna, Austria. The company is listed on the Vienna Stock Exchange

During each fuelling part of the fuel is evaporated, that harms the ecology and lead to unearned revenues. We propose to use Vapour recovery system to avoid evaporation. We are going to install it on the fuel storage in each Airport, where OMV operates

OMV group is one of the leading companies in the SAF industry and aims to be the leader by 2030. OMV group is now experiencing a stagnancy period after the geopolitical tensions because of the strong connection with Russian market

By using Vapour recovery system company can both decrease the price of the fuel and increase the sold volumes. Each additionally caught unit of the fuel can be stored and sold one more time

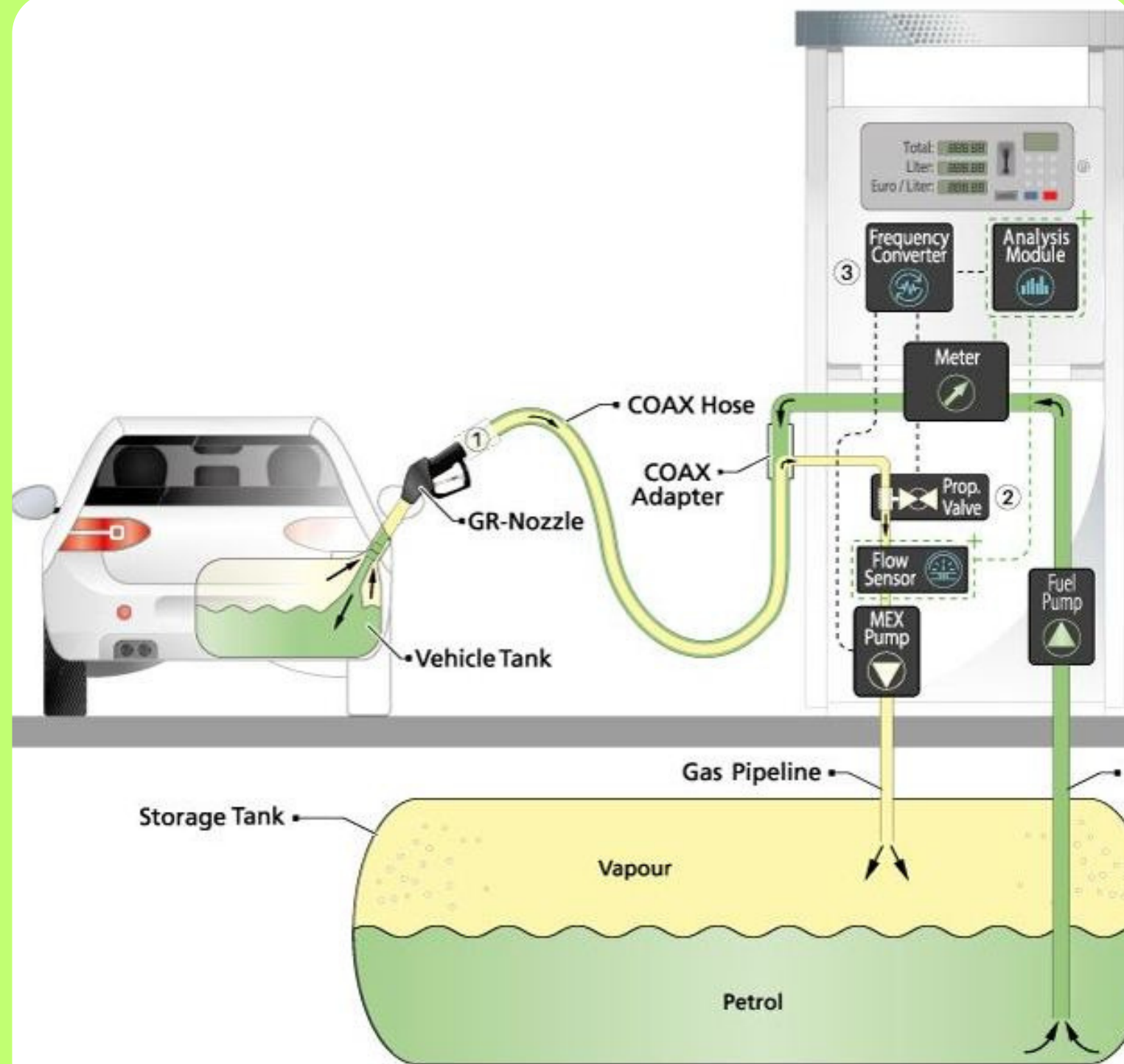
The Final Results

- NPV - 10 800 000 €, Break-even year - 2027
- The volume of the returnable fuels can be increased by 0.09%
- Fulfilment of 7-9th & 12th UN SDGs
- KPI effectiveness: SDG Targets 7.1, 8.4, 9.4, 12.6
- Price of the SAF fuel can be reduced by up to 17%



OMV CASE

TECHNICAL IMPLEMENTATION



FOR ORDINARY CAR FILLING STATIONS, THE VAPOUR RECOVERY SYSTEM COLLECTS THE OILED VAPOR WHICH EXHALING WHILE REFUELING THE CAR BETWEEN THE NOZZLE AND THE VEHICLE TANK

FURTHER THE COLLECTED PETROL CAN BE USED ONE MORE TIME BY BRINGING IT BACK USING THE RECOVERY SYSTEM TO THE PETROL STORAGE

THE SAME SYSTEM CAN BE USED FOR THE AIRPORTS, AS THE FUEL TRANSPORTATION VEHICLES ARE REFUELED USING THE SAME STORAGES. THUS, THEY ARE STATIC AND RECUPERATION MECHANISMS CAN BE USED

MARKET STRUCTURE

LOCAL LEVEL

EUROPEAN LEVEL

GLOBAL LEVEL

HIGH ENTRY COSTS
STRICT POLICIES
(REFUELEU)

LIMITED ACCESS TO
DISTRIBUTION
CHANNELS

NON-UNIQUE
PRODUCTS, ALL
SAF-RELATED

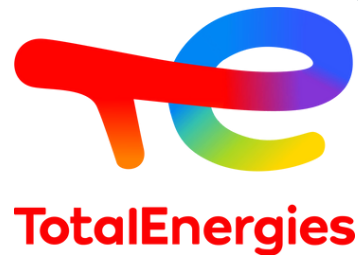
ALL COMPANIES -
SUBSTITUTES

LOW SWITCHING
COSTS FOR BUYERS
WITH HIGH PRICE
SENSITIVITY

LIMITED NUMBER OF
POTENTIAL
CUSTOMERS

LOW PRODUCT
DIFFERENTIATION

BUYERS
PROPENSED TO
CHOOSE SAF IN THE
FUTURE





SWOT ANALYSIS

STRENGTHS

- Austrian and Romania market leader
- High digitalization level, a big investment company in digitalization
- Up- and downstream solutions

WEAKNESSES

- Limited market for future growth
- High dependence on the taxation legacy of fossil fuels
- High dependence on the international competitors

OPPORTUNITIES

- New clients and higher product sales in the existing markets
- Alternative fuel implementation and expansion
- Increasing number of flights globally

THREATS

- Commodity price risk
- Future exploration and shortage risks
- Exchange risks and influence from Asian and American global suppliers

BUSINESS ENVIRONMENT

Political	Economic	Social
<ul style="list-style-type: none"> • OPEC petroleum policies • USA, UAE can imply impact on the oil supply • Policies about renewable sources, fossil fuels restrictions 	<ul style="list-style-type: none"> • Economic declines in the "oil-producers" countries have an impact on the industry • Aviafuel is highly dependent on the air companies' demand 	<ul style="list-style-type: none"> • Increasing public demand on energy sources in developing countries • Increasing social requests for oil companies contribution
Technological	Environmental	Legal
<ul style="list-style-type: none"> • SAF development in a high-competitive industry • Implementation of big data, analytics and IoT • Circular plastics projects 	<ul style="list-style-type: none"> • Seasonal demand for oil gas and air fuel • Strategies for responding environmental damage 	<ul style="list-style-type: none"> • National and EU legislation • Changing norms of sustainability • New legislation for digitalised part

- **Shareholders** (ÖBAG, MPPH)
- **Industry companies** (NOVA Chemicals, CEGH AG)
- **Acquisitions** (OMV Petrom, ADNOC refining, Borealis AG)
- **Equipment Manufacturers**
- **Landowners** (offices + refinery in Romania)

- Oil and gas **exploration and production**
- Natural gas **transportation**
- Chemicals **production**
(aviafuel, fertilizers, consumer products)

- **21,5** thousand of employees
- Long-term procurements in **Austria** and **Norway**
- **Retail network** (filling stations and logistics capacities)

- **Responsible** production and consumption (high-end petrochemical solutions, from value chain to value circle, ...)
- **Production** and **exploration** of oil and gas in European regions
- Moving **from fossil** to **low-carbon** business
- Net-zero company in line with **the Paris agreement**

- **Oil and gas** costs
- Primary products **manufacturing**
- Transport and **refining**
- **Storage** costs
- **Labor** remuneration
- **Licenses** and **taxes**

- **Long-term** contracts
- **Fuel cards** for private customers
- **High reputation** in the industry

- **Filling** stations (network in 10 countries)
- **Social media** channels (OMV blog, Youtube, Inst, etc.)
- **Mail** and **phone** communication

- Sale of **oil** and **gas** products
- **Logistics** fees
- Consumable **sales** in gas stations
- **Retail revenue** from gas stations

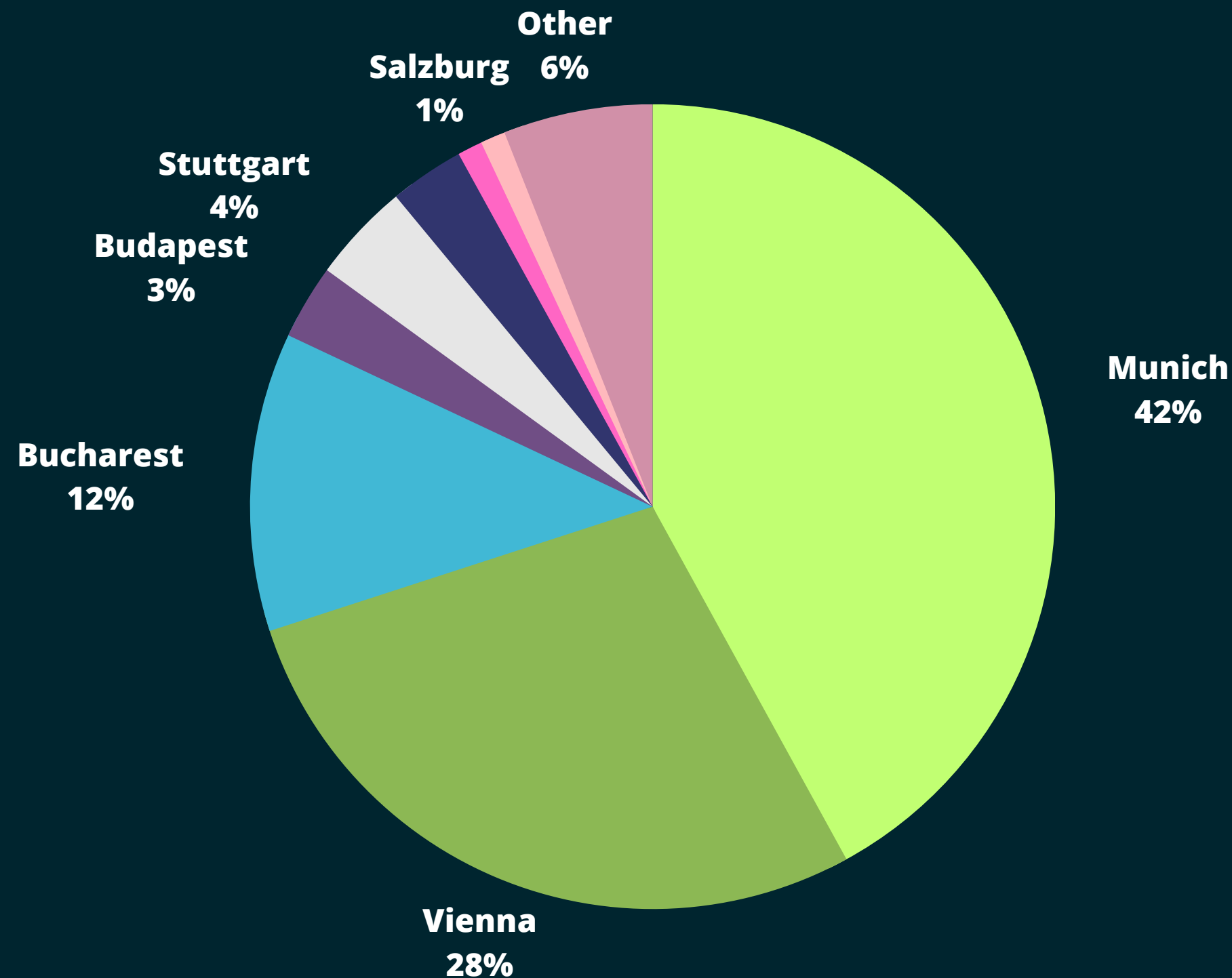
- **Oil**
companies and **gas**
primary producers
- **Power** and **heating**
customers
- **Chemicals**
producers

SOURCES: [OMV-GAS.COM/SUPPLY CHAIN](https://www.OMV-GAS.COM/SUPPLY-CHAIN) ; [OMV.COM/SUPPLIER CENTER](https://www.OMV.COM/SUPPLIER-CENTER) ;
OMV.COM/ PURCHASING & INVOICING CHANNELS

COMPANY ANALYSIS

MARKET DISTRIBUTION

Share in Airports



1. **OMV SUPPLY = 2MN TONS OF JET FUEL PER YEAR**
2. **OMV OPERATES IN 13 AIRPORTS IN EUROPE**

MAIN AIRPORTS ARE:

MUNICH TO WHICH OMV SUPPLIED 42% OF ANNUAL SUPPLY, **VIENNA** WITH 28% AND **BUCHAREST** WITH 12%

BASED ON ANNUAL REPORTS, AIRPORT'S FUEL CONSUMPTION, NUMBER OF FLIGHTS AND PARTNER AIRLINES WE ESTIMATED SHARE OF SUPPLY TO EACH AIRPORT

SUSTAINABILITY KPIs

UN SDGs:

7 AFFORDABLE AND
CLEAN ENERGY



8 DECENT WORK AND
ECONOMIC GROWTH



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



Sustainable KPIs:

Environmental

Improving resource efficiency of the company (Target 8.4):
Improved the number of returnable fuels by 0.09%

Social

Accessibility of SAF
(Target 7.1): the difference in price between jet fuel and SAF is reduced up to 17%

Governance

Upgrading the aviation fuel industry for sustainability (Target 9.4): use more SAF in the industry. OMV is striving to become a **leading producer of SAF in Europe**;
Encourage **other aviation fuel companies to adopt sustainable practices** (Target 12.6): be the leader of sustainability in the industry. OMV is going to scale the production of SAF up to 700000 tons per year

MODEL ASSUMPTIONS



- During the fuelling of aircraft, **0.1% of the fuel is evaporated**, and the system **can catch 90%** of that fuel, providing **an effectiveness of 0.09%** for reusable fuel.
- According to analysts projections and the fact that in 2023 - 2024 U.S. is going to refill its strategic fuel reserves, **we assume that in 2024 the price of the oil will rise for 12%**.
- We take into account developing global weakening of the economy, which **affects demand** on oil and jet fuel and **fuel prices**.
- We consider **3 cases**:
 - **Base case**: Downside trend in economy will be resolved in 2 years and the weakening will be moderate. Afterwards, we expect stable growth.
 - **Negative case**: Economy will face a deep recession for several years. It will take time for economy to recover until growth.
 - **Positive case**: Economy will overcome the negative trend fast and the downwards movement will be not deep.

MODEL ASSUMPTIONS



OMV FUNDAMENTALS		COE	10,6%
Debt	53%	Risk free rate	3,1%
Equity	47%	Country risk premium	0,7%
COD	3,7%	Base premium for Mature Equity	5,8%
Cost of debt (pre-tax)	4,8%	Beta leveraged	1,17
Net income tax rate	23%	WACC	6,9%

MODEL ASSUMPTIONS		Number of systems per airport	2
Initial price per system	50000€	Evaporated fuel, % of the sold amount, %	0,1%
Installation cost, % of cost	75%	Caught fuel, %	90%
Lifetime, years	5	Initial jet fuel price	786,9\$
Operating expences, %	25%	Initial sales volume	2000000 Tons
Number of airports	13	Terminal growth rate	2%

SOURCES: [ENVIRONMENTAL PROTECTION AGENCY](#) ; [STATISTIC.AT](#) ; [FRED ECONOMIC DATA](#) ; [STATISTA](#)

MODEL RESULTS



Base

	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
Fuel price	881,33	828,45	803,59	819,67	836,06	852,78	869,84	887,23	904,98	923,08
Sales Volume	1 880 000,00	1 823 600,00	1 787 128,00	1 822 870,56	1 877 556,68	1 933 883,38	1 991 899,88	2 051 656,87	2 113 206,58	2 176 602,78
Catched	1 692,00	1 641,24	1 608,42	1 640,58	1 689,80	1 740,50	1 792,71	1 846,49	1 901,89	1 958,94
Total revenue	1 491 206,98	1 359 682,52	1 292 514,20	1 344 731,78	1 412 775,21	1 484 261,63	1 559 365,27	1 638 269,15	1 721 165,57	1 808 256,55
CAPEX	2 275 000,00	-	-	-	-	-	-	-	-	-
Operating expenses	325 000,00	351 000,00	368 550,00	375 921,00	383 439,42	391 108,21	398 930,37	406 908,98	415 047,16	423 348,10
Depreciation	260 000,00	280 800,00	294 840,00	300 736,80	306 751,54	312 886,57	319 144,30	325 527,18	332 037,73	338 678,48
Total Expences	2 860 000,00	631 800,00	663 390,00	676 657,80	690 190,96	703 994,78	718 074,67	732 436,16	747 084,89	762 026,59
Pre-tax profit	- 1 368 793,02	727 882,52	629 124,20	668 073,98	722 584,25	780 266,86	841 290,60	905 832,99	974 080,68	1 046 229,96
Tax	-	167 412,98	144 698,57	153 657,01	166 194,38	179 461,38	193 496,84	208 341,59	224 038,56	240 632,89
Net Income	- 1 368 793,02	560 469,54	484 425,64	514 416,96	556 389,87	600 805,48	647 793,76	697 491,40	750 042,13	805 597,07

Positive

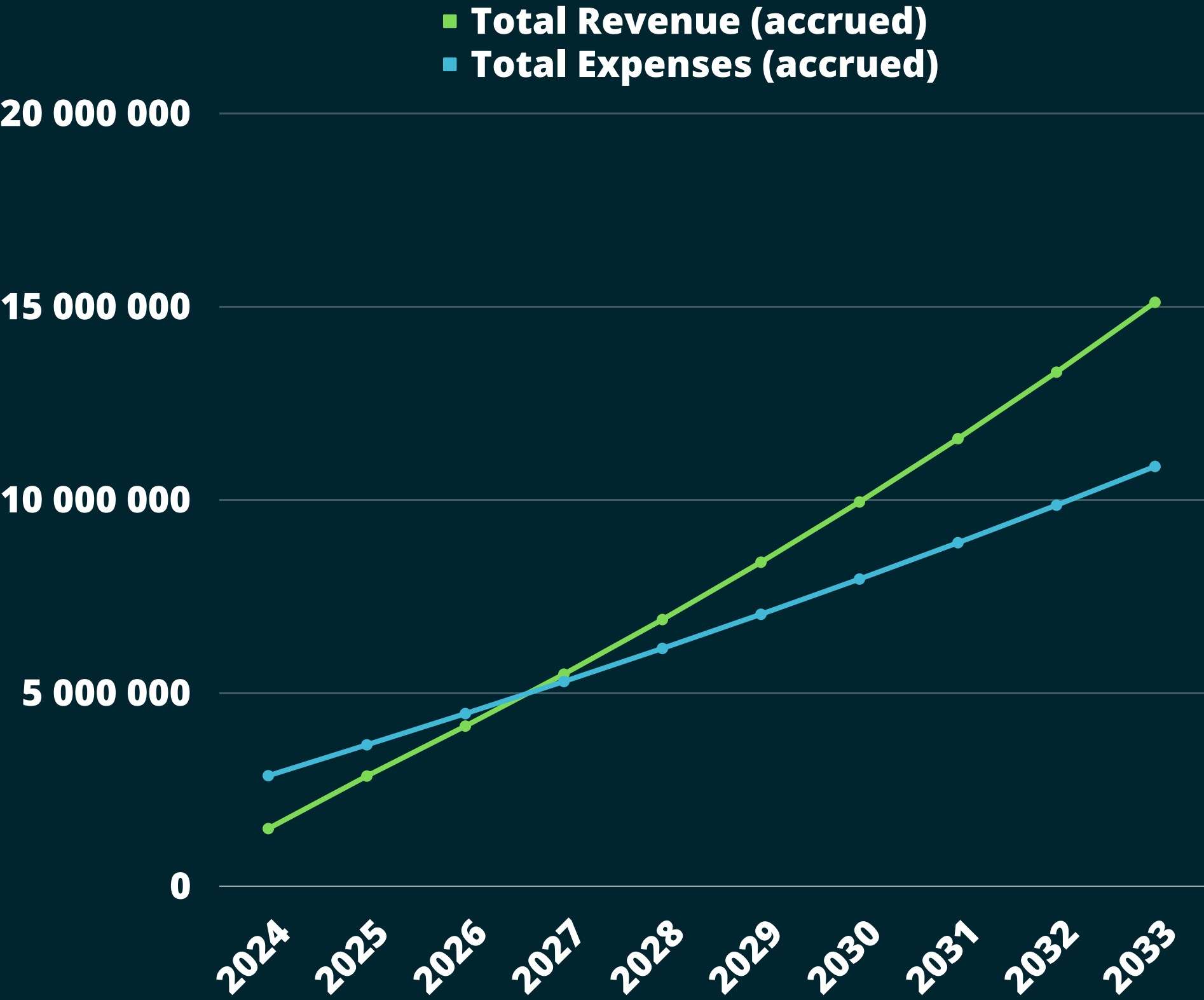
Total revenue	1 566 277,24	1 504 096,03	1 534 328,36	1 596 315,23	1 677 088,78	1 761 949,47	1 851 104,11	1 944 769,98	2 043 175,34	2 146 560,01
Total Expences	2 860 000,00	631 800,00	663 390,00	676 657,80	690 190,96	703 994,78	718 074,67	732 436,16	747 084,89	762 026,59
Net Income	- 1 293 722,76	671 667,94	670 622,54	708 136,22	759 911,32	814 625,11	872 432,67	933 497,04	997 989,65	1 066 090,74

Negative

Total revenue	1 376 760,24	1 216 505,35	1 144 609,88	1 121 832,15	1 155 711,48	1 214 190,48	1 275 628,51	1 340 175,32	1 407 988,19	1 479 232,39
Total Expences	2 860 000,00	631 800,00	663 390,00	676 657,80	690 190,96	703 994,78	718 074,67	732 436,16	747 084,89	762 026,59
Net Income	- 1 483 239,76	450 223,12	370 539,31	342 784,25	358 450,80	392 850,69	429 316,46	467 959,15	508 895,54	552 248,47

- **Initial investments (CAPEX) - 2 275 000 € (including installation costs)**
- **Inflation - 8% first year, 5% second year, 2% others**
- **Fuel price fluctuations and sales volume forecasted based on economic development scenarios**

MODEL RESULTS



Scenario	NPV	Break-even Year
Positive	12 100 000 €	2026
Base	10 800 000 €	2027
Negative	9 300 000 €	2028



The price of the company is expected to decrease

Flat market for OMV: no significant shares' volatility and market effects. Sales orders had more influence in the past 3 months (bear market)



CONCLUSION

Positive NPV of the suggested projected provides the following opportunities:

- The price of the SAF can be reduced by up to 17% because of the increased amount of the returned fuel
- OMV Group can become a leader of the branch in the current airports through the sustainable project and the global SAF-leader
- The increased sustainability will improve the image of the company and give rise to the positive expectations of the shareholders after the change of the market in 2022
- According to the base scenario by 2027 company can attain additional revenues and a new level of the net-zero-business strategy implementation