

# **ESADE Business School**

## **Report**

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### **Radiant Power**

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## **Executive summary**

Welcome to the executive summary of Radiant Power's financial report. This summary concisely overviews the company's financial performance over six years, highlighting key indicators and trends.

In Year 1, Radiant Power faced financial challenges, resulting in a –1.2 million USD deficit after taxes. Despite the initial setback, the company demonstrated resilience and embarked on a path toward profitability.

Year 2 marked a significant improvement, reducing the deficit to –83,500 USD. This positive development indicated progress and showcased the company's determination to overcome financial obstacles.

As Radiant Power entered Year 3, the financial situation stabilized, with 771,600 USD remaining after taxes. This more balanced financial performance demonstrated the company's commitment to sustainable growth.

The fourth year witnessed continued stability, with 831,600 USD remaining after taxes. Radiant Power's consistent financial standing showcased its ability to maintain a solid foundation for future endeavors.

In Year 5, the company experienced a substantial leap forward, reporting 2.2 million USD remaining after taxes. This significant fund increase indicated a successful turnaround and highlighted Radiant Power's profitability.

The positive trajectory continued into Year 6, with 2.7 million USD remaining after taxes. This sustained profitability reinforced the company's position and affirmed its potential for continued success.

In conclusion, Radiant Power has made remarkable progress in its financial performance over the past six years. Despite the initial challenges, the company's resilience, dedication, and strategic efforts have led to significant improvements and sustained profitability. Radiant Power is well-positioned for future growth and success in the nuclear battery production and technology industry.

**\*\*Please note that this summary provides a high-level overview of the financial performance and should be read in conjunction with the complete financial report and the appendix with all the financial information for a comprehensive understanding of Radiant Power's financial position.**

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# 1 Introduction

Welcome to Radiant Power's business report. Radiant Power is a pioneering company in nuclear battery production and technology. This report will show our operations, future projections of achievements, and prospects.

Radiant Power specializes in producing cutting-edge nuclear batteries that harness the power of the Strontium-90 isotope derived from nuclear waste. Our innovative technology offers unique advantages, making our batteries highly desirable for various applications.

As a customer-focused company, we strive to establish strong client relationships. We achieve this through informative channels such as our website [1], a valuable resource for information about our products and services. Additionally, we actively engage with industry stakeholders through seminars and conferences, fostering collaboration and knowledge exchange.

## 2 Opportunity

### 2.1 Description

Radiant batteries generate 5 to 10 nW power through beta decay, where strontium-90 decays and releases high-energy electrons that can be harnessed to produce electrical power. This type of technology could be utilized in numerous applications depending on the power density. However, Radiant Power intends to use the battery to power wireless sensors in remote locations that are not easily accessible.

The technology has the potential to address several issues with wireless sensor applications. The radiant battery seeks to overcome the following problems:

- Environmental resilience: Radiant batteries can operate in extreme conditions, including high temperatures, extreme cold, high pressure, or high radiation environments.
- Energy independence: Radiant batteries are compact and can provide a self-contained power source to the sensors, reducing reliance on external infrastructure or power grids, which is beneficial in remote locations.
- Reliability: Radiant batteries have a long life of up to 30 years and are highly reliable, providing a steady power output without needing maintenance or recharging.
- Waste management: Radiant batteries also reduce the radiological impact and address the issue of nuclear waste to some extent since the strontium-90 used in the battery is harvested from processed spent fuel of nuclear reactors.

Radiant battery has the following advantages:

- Sustainable and safe
- Independent of temperature differences
- Long lifespan
- Constant power output
- Reliable and predictable

The radiant battery is a betavoltaic battery, and the decay of strontium 90 is the driving force behind electrical power production. The battery has a semiconducting material, commonly structured as a p-n junction, that captures the kinetic energy of beta particles. As a result of the interaction between the beta particles and the semiconductor, electron-hole pairs are created, providing an electric current. This current goes through an external circuit, enabling the battery to supply electricity.

## **2.2 Analysis**

Radiant batteries are mostly suitable for applications needing long-lasting, low-power energy sources, such as wireless sensors and medical implants, due to their limited power output of 5 to 10 nW. Radiant batteries can be applied to many devices currently used in microelectronics, medicine, electric cars, space exploration, the military, renewable energy storage, small modular reactors (SMR), electronics, and the Internet of Things (IoT). These diverse industries constitute our overall available market (TAM). However, due to the sensitivity of Radiant batteries and the estimated activity of each unit, they fall under the controlled substance category. They are licensed under the class III nuclear materials. Consequently, the usage of Radiant batteries must be under regulatory control. Due to this, the identified serviceable available market (SAM) was narrowed to military, space exploration, and SMR applications since they either already have a license to handle nuclear material or do not require permission or license.

Consequently, our serviceable obtainable market (SAM) of Radiant batteries are SMR vendors in the United States of America (USA). SMR vendors require numerous plant control and safety monitoring sensors, like conventional nuclear power plants (about 2,000). However, this requirement competes with the limited space available in current SMR designs. Furthermore, the current generation of sensors is not intended to meet certain SMR criteria. The sensors must be compact, wireless, and suitable for the environmental conditions in the reactor for lengthy periods without operating and maintenance personnel and without interfering with the long-term functioning of the remote plant. As a result of Radiant Battery's ability to address the SMR vendors' sensor-related issues, they will be among our earliest adopters. In addition, the United States is one of the countries with the greatest number of SMR vendors. It offers reduced taxes to startups for a considerable period, making it the most promising market to launch our business. Fig. 1 illustrates the identified customer segment for the business.

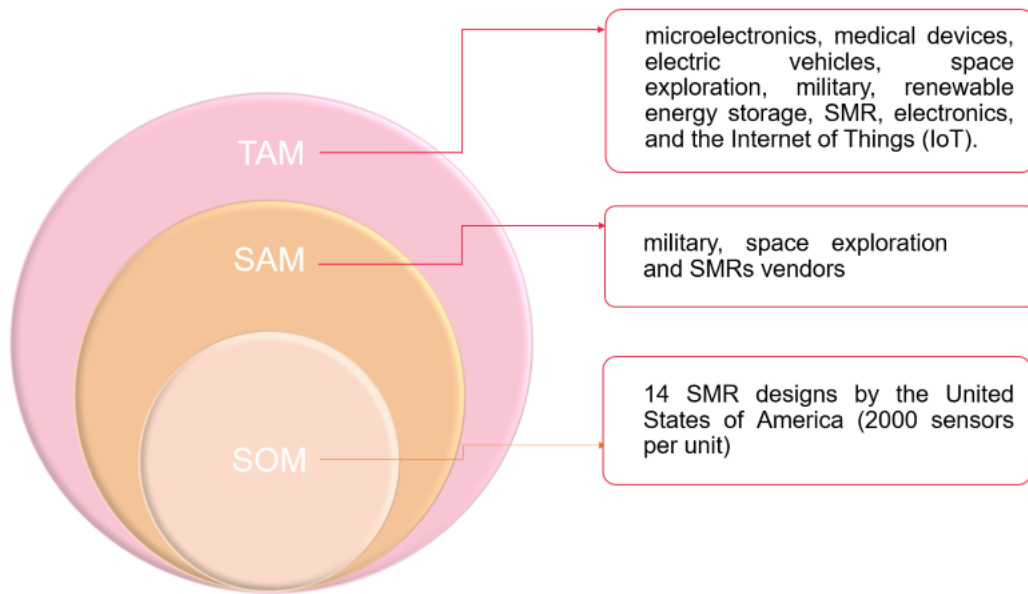


Figure 1: Customer Analysis

### 3 Value Proposition

#### 3.1 Description

As Radiant Power, we have developed a compelling value proposition that addresses the needs of our target customers. Our value proposition revolves around producing nuclear batteries utilizing the Strontium-90 isotope from nuclear waste. These batteries offer numerous benefits, making them an ideal solution for our customers in the SMR producers, Military/Defense, Space exploration industries, and microelectronics sectors.

Our nuclear batteries' power sensors play a vital role in detecting and measuring critical parameters such as temperature and pressure. In emergency scenarios, such as accidents, our battery-charged sensors provide valuable and accurate information to SMRs and Space Exploration probes, enabling swift and informed decision-making.

One of the key advantages of our value proposition is the prolonged half-life of Strontium-90, which is approximately 29 years, compared to the existing battery technology utilizing Tritium, with a half-life of about 12 years. This significant difference allows our customers to benefit from a considerably longer battery lifespan, resulting in cost savings and reduced maintenance efforts. Moreover, our batteries are encased with durable materials comparable to nuclear cladding, ensuring robustness and safety in various operating conditions.

By emphasizing our nuclear batteries' longevity, reliability, and sustainability, Radiant Power provides our customers with an innovative and efficient power solution. Our commitment to addressing the limitations of existing battery technologies and providing long-lasting and dependable power sources is at the core of our value proposition.

### 3.2 Validations

To validate our value proposition, we compared our technology to the existing ones in the market, which deliver nano-watts of power to different sensors.

We compared nuclear batteries to methods like inductive coupling and energy harvesting. In Fig. 2, we see that inductive coupling performs badly in almost all sectors of customer value. Still, it can produce a higher power density than nuclear batteries if needed. Similarly, following the energy harvesting method trend we observe in Fig. 2, it is cost-effective and sustainable. Still, it is not independent of temperature differences, one of the main factors needed for our customer segment. We see that nuclear batteries, tritium, and strontium, have a similar performance trajectory, but strontium is cheaper and has a longer half-life than tritium.

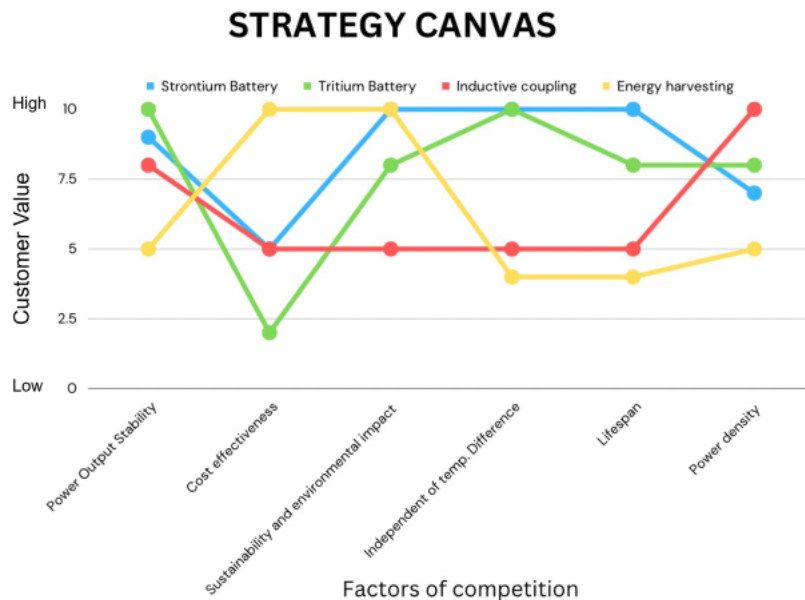


Figure 2: Strategy Canvas

### 3.3 MVP

We at Radiant Power are thrilled to share our exciting journey with our website[1], our minimum viable product that has brought our innovative tech company into the spotlight. Recognizing the importance of reaching out to potential customers and investors, we strategically created a website as our MVP.

Our website serves as a digital gateway, allowing us to convey our company's essence, values, and vision succinctly and effectively. Through its well-crafted pages, we have encapsulated the key elements that make Radiant Power a unique player in our niche market.

The first page of our website acts as an engaging introduction, providing visitors with a snapshot of our company and what sets us apart. It gives them a glimpse into our story



and the passion that drives our team forward. We aim to captivate potential customers' and investors' interest by showcasing our dedication and expertise.

The second page serves as the core concept hub, where we delve into the heart of our technology. Here, we explain the innovation that underlies our products, focusing on the benefits and potential it holds for our target market. By concisely presenting our technological advancements, we demonstrate our understanding of the industry landscape and how our offerings can address specific pain points.

Moving forward, the third page provides valuable insights into our activities, showcasing our progress during our R&D phase. From highlighting successful milestones to sharing our ongoing projects, we aim to instill confidence in our audience by demonstrating our ability to execute and deliver tangible results.

The fourth page introduces our key partners, solidifying our credibility and showcasing the collaborative ecosystem we have established. By highlighting our network of industry leaders and strategic alliances, we emphasize the support and expertise that bolster our position in the market.

Finally, the last page is the culmination of our efforts, as it provides visitors with essential contact information, including a user-friendly portal to email us directly, links to our social media platforms, and other relevant means of communication. This ensures that potential customers and investors can easily connect with us, allowing for seamless engagement and nurturing of relationships.

To validate the effectiveness of our MVP, we eagerly sought feedback from industry experts. We gained valuable insights and perspectives by sharing our website with these knowledgeable professionals. Their unanimous agreement that our website was interesting and had the potential to attract customers solidified our belief in the power of our MVP. Their validation is a testament to the thoughtfulness and strategic planning that went into creating a website that effectively communicates our value proposition.

In conclusion, our MVP, the Radiant Power website, was carefully crafted to captivate the interest of our target audience and entice potential customers and investors. By providing a comprehensive overview of our company, showcasing our core concept, sharing our activities, introducing our key partners, and offering seamless communication channels, we have laid a solid foundation for success. The positive feedback from industry experts has bolstered our confidence and reaffirmed our belief that our MVP will be instrumental in attracting the attention and support we need to thrive in our niche market.

## **4 Business Model**

### **4.1 Description**

Our business model focuses on serving key customer segments, including government security companies in the defense sector, SMR (sensors) manufacturers, and space exploration organizations. We aim to establish strong customer relationships through our informative

website [1] and organize seminars and conferences. We utilize a dedicated sales and marketing team to reach our customers and actively participate in national and international conferences. Our key activities involve conducting seminars, researching and developing, assembling batteries, and reprocessing spent nuclear fuel.

We rely on key resources such as an assembly plant, a team of skilled engineers and scientists, and advanced battery technology to support our operations. We have formed strategic partnerships with fuel suppliers, regulatory bodies, microelectronics manufacturing companies, SMR companies, space exploration organizations, and other manufacturing companies.

Our cost structure includes expenses related to battery manufacturing, research and development laboratories, reprocessing facilities, collaboration with microelectronics manufacturers, procurement of spent nuclear fuel, and licensing fees. We generate revenue through the sales of our batteries, technical visits from universities interested in our technology, and sales of other electronics products incorporating our advanced technology.

Overall, our business model is designed to cater to the specific needs of our target customer segments, leverage strategic partnerships, and generate sustainable revenue streams by selling innovative and reliable battery solutions.

## **4.2 Validation**

During the course, our business model changed and evolved a lot. We started with the idea that we wanted to harvest energy from spent nuclear fuel to power devices for a long period and reduce the radiological impact of nuclear waste. Since fuel would no longer be fissile, it would also not be dangerous to handle.

Initially, we wanted to use the fuel to power cars running for 5 to 6 years without refueling. But we soon realized that the fuel required to power a car would be too expensive and unstable to handle. Therefore we started to drift towards cell phones or laptops. The problem with this model was that the disposal would have been difficult after years of operation.

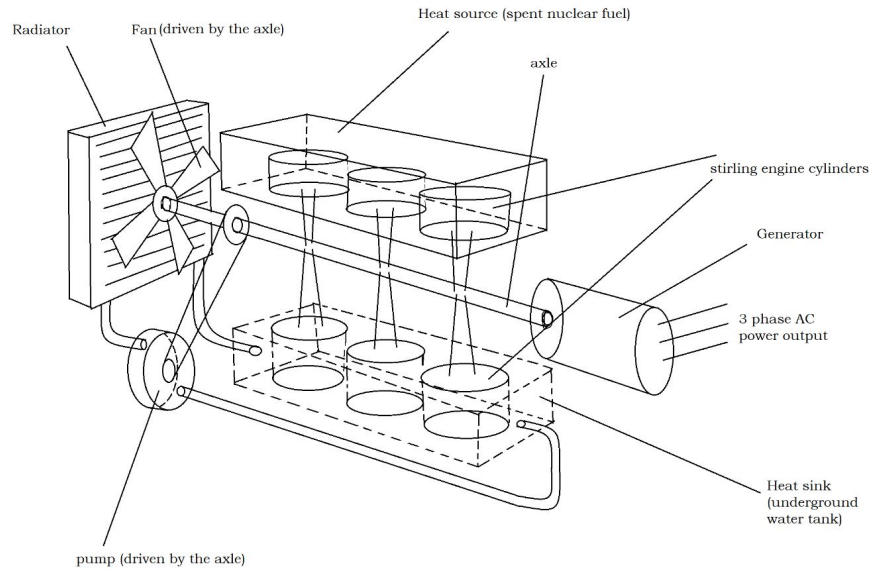


Figure 3: Generator

Our first working model, after careful research, was a nuclear generator, as shown in Fig. 3. It would power cell towers that need 8-9 kWh of energy daily. The model was eco-friendly, regulated, and would replace the need for a diesel generator. We conducted several interviews and sent a few survey forms to cell phone tower companies like AT&T (in the USA) and Integer (in India). The response to this product was very positive, and the customers confirmed that there was a problem with their current solutions since sometimes, during power outages, the diesel generator would have to be used, but the costly part about it was the maintenance and replacement cost. The problem was validated at this stage. But when we started designing the prototype, we realized that the fuel needed for this prototype would be too expensive for the model to be effective.

At this point, we started looking for a cheaper and more abundant element. We finally decided to use Strontium to produce 5 – 10 nW of energy with the help of a betavoltaic battery for wireless sensors. For this business model, we identified the early adaptors as small modular reactor contractors, space exploration companies, and the military. Although it was difficult to interview the military and space exploration companies, we contacted the professors in the defense department to answer some of our interview questions. They informed us that this device might be useful in remote locations since it does not need to be replaced or maintained for decades. We also interviewed the head of an SMR company, Janne Wallius, who also confirmed that there is still R & D going on to find a proper solution to wireless sensors inside a nuclear reactor. Our problem and customer segments were validated.

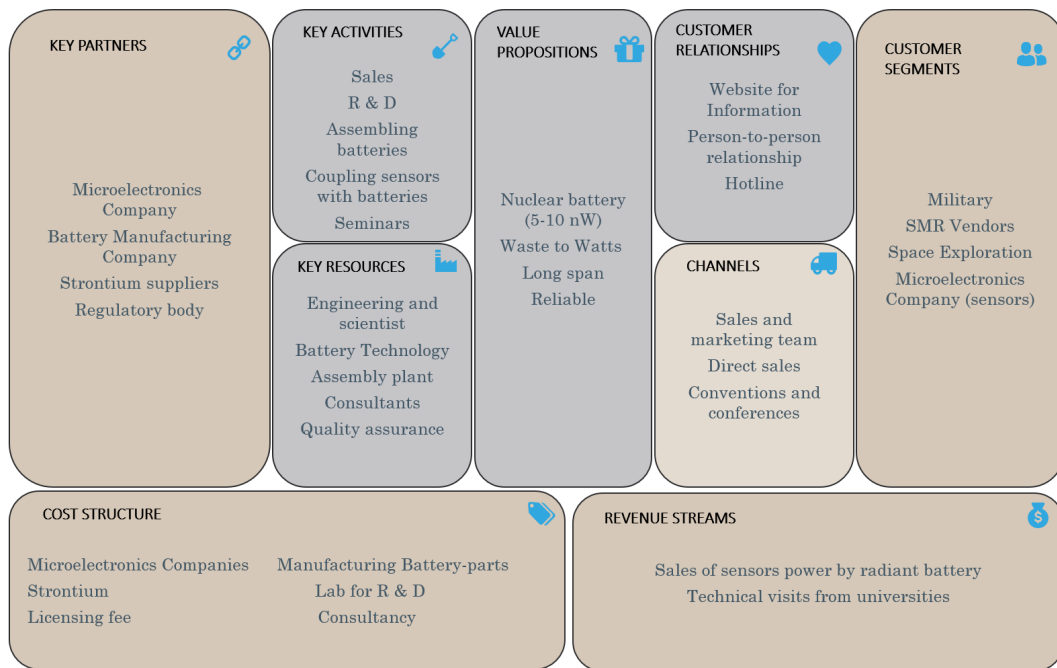


Figure 4: Business Model Canvas

### 4.3 Risk

The risk associated with our business model is that it cannot be distributed to a customer who does not possess the license to handle material with activity higher than 30000 Bq. Since SMR vendors, space exploration companies, and the military have licenses to handle material with much higher activities, we can currently only sell our devices to these customers.

Our company also would have to issue a license to handle this type of material which would have to be renewed each year. Therefore 47,000 USD would have to be a fixed cost for the company.

## 5 Business Model Implementation ( 36 months)

### 5.1 Marketing Plan

Our startup recognizes the importance of developing a robust and effective marketing plan for the next five years. To ensure the best possible strategy, we have engaged the services of external consultants who bring expertise and specialized knowledge to enhance our marketing efforts. This comprehensive marketing plan outlines the key components to drive our success in promoting sensors integrated with beta voltaic cells for small modular reactors for the first five years.

- Situation Analysis: Our initial analysis revealed that the market for beta voltaic cells in the SMR industry is very attractive as the new reactor systems focus on newer sensor

designs. Moving on, we will thoroughly analyze the nuclear energy industry and the potential in the segments like military and defense, along with space exploration and the competitive landscape. This analysis will provide valuable insights into market trends, opportunities, and challenges. By understanding the market dynamics, we can align our marketing strategy accordingly.

- **Target Market Segmentation:** We will refine our target market segments based on the insights gained from the situation analysis. This will involve creating detailed buyer personas that capture the characteristics and needs of our ideal customers. By segmenting the market effectively, we can tailor our marketing messages and strategies to resonate with specific customer groups.
- **Branding and Positioning:** We will focus on strengthening our brand identity and establishing a unique position in the market. We will differentiate ourselves from competitors through a compelling brand story and value proposition. We will establish ourselves as a trusted and innovative solution provider by clearly communicating our sensors' benefits and competitive advantages.
- **Marketing Channels and Tactics:** We will leverage digital and traditional marketing channels to reach our target audience effectively. This will include optimizing our website [1], utilizing social media platforms, engaging in industry publications, participating in trade shows and conferences, and implementing direct marketing campaigns. We can maximize our reach and impact by utilizing the right channel mix.
- **Content Marketing Strategy:** A robust content marketing strategy will be crucial to our marketing plan. We will develop a content calendar encompassing various formats, including blog posts, white papers, case studies, videos, and infographics. By creating valuable and educational content that addresses our audience's pain points, we will position ourselves as a thought leader in the nuclear energy industry.
- **Lead Generation and Nurturing:** Lead generation will be a crucial focus, and we will implement both inbound and outbound marketing tactics. We will attract potential customers and convert them into leads through content offers, lead magnets, webinars, email campaigns, and personalized outreach. Additionally, we will establish a lead nurturing process to build relationships with prospects and guide them through the sales funnel.
- **Partnerships and Influencer Marketing:** Strategic partnerships and collaborations within the nuclear energy industry will play a vital role in our marketing plan. By identifying influential individuals, organizations, and industry experts, we can tap into their networks and leverage their advocacy for our sensors. Co-marketing initiatives, guest blogging, and sponsorship opportunities will enhance our brand reputation and expand our reach.

- **Marketing Performance Measurement:** We understand the importance of tracking the effectiveness of our marketing efforts. Key performance indicators (KPIs) will be established to monitor website traffic, lead conversion rates, social media engagement, and customer feedback. These insights will enable us to continuously refine our marketing strategies and tactics, ensuring we stay on track toward our business goals.

In conclusion, our marketing plan for the next five years focuses on leveraging the expertise of external consultants to drive the success of our sensors integrated with beta voltaic cells for SMRs. By conducting a thorough situation analysis, refining our target market segmentation, strengthening our brand positioning, utilizing effective marketing channels, implementing a content marketing strategy, generating and nurturing leads, fostering strategic partnerships, and measuring marketing performance, we are confident in our ability to achieve our marketing objectives and drive growth for our startup.

### 5.1.1 Sales Forecast

Based on the strong marketing strategy we have planned to implement, we have projected that our company will continue to see sustained growth in yearly sales despite spending the first year on research, development, licensing, and strategizing due to the nature of the technology. The sales figure for the first year is thus zero. But the sales numbers are projected to increase in years 1, 2, 3, and 4. In year 5, we expect to close a contract with a second SMR vendor; thus, the sales figure is also expected to double nearly. A similar trend in the continued sales rise will also be observed in year 6, bringing the total number of units sold in year 6 to 2530.

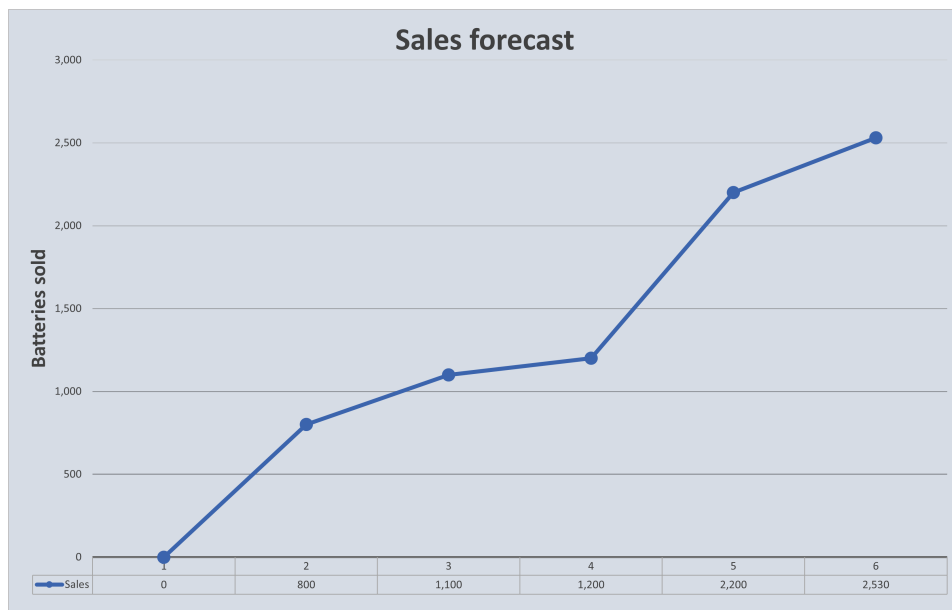


Figure 5: Sales forecast for the first 6 years.

### 5.1.2 Financial Overview

The Radiant Power financial yearly:

- Year 1: After taxes, a –1.2 million USD deficit is reported in the first year. This indicates a challenging financial situation at the beginning of the venture.
- Year 2: Despite the initial deficit, the business improved its financial position in the second year, with a reduced deficit of –83,500 USD. This shows progress towards profitability.
- Year 3: In the third year, the financial situation stabilizes, with a similar amount of money on hand. The company reports 771,600 USD remaining after taxes, indicating a more balanced financial performance.
- Year 4: The fourth year follows a similar trend, with 831,600 USD remaining after taxes. This highlights the consistency in the company's financial stability.
- Year 5: Significant improvement is observed in the fifth year, with a substantial increase in remaining funds after taxes. The company reached 2.2 million USD, indicating a successful turnaround and increased profitability.
- Year 6: Continuing the positive trajectory, the sixth year yields further growth in remaining funds after taxes. The company reports 2.7 million USD, showcasing sustained profitability and financial success.

Based on the sales forecast, the battery product demonstrates a steady growth pattern, increasing sales volume over six years. The financial overview reflects the initial challenges faced in the first year, but the business successfully improves its financial position with strategic measures. The significant improvement in the fifth year and sustained profitability in the sixth year highlight the positive impact of investments, improvements, and increasing sales. The company needs to continue monitoring market trends, investing in product development, and maintaining financial stability to ensure continued success in the battery industry.

## EARNINGS AFTER TAXES

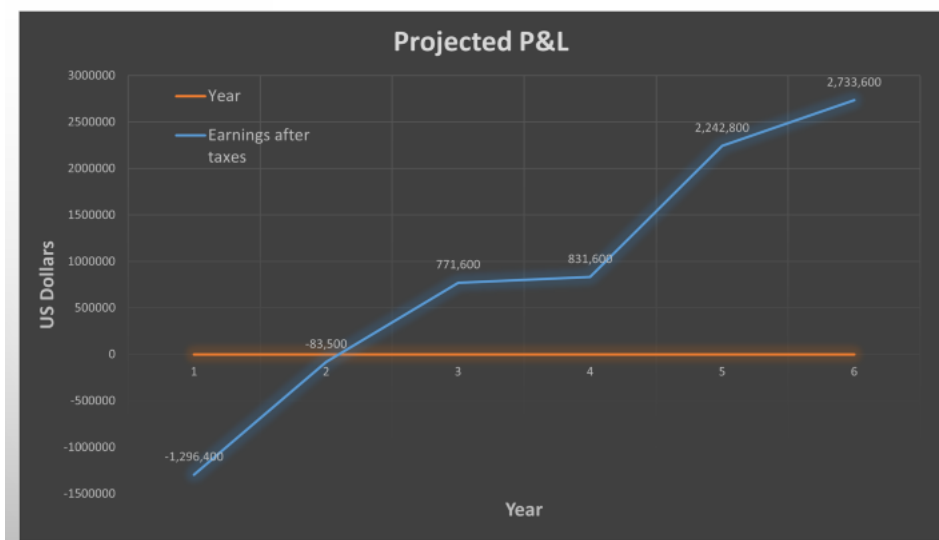


Figure 6: Profit and loss

### 5.1.3 Success Indicators and Adjustments

To ensure the accuracy of our sales forecast, we will closely monitor key performance indicators such as lead generation, conversion rates, and customer feedback. Analyzing these metrics regularly allows us to make data-driven adjustments to our strategies and optimize our sales efforts.

It's important to note that the sales forecast provided here is a projection based on our sales plan and industry analysis. External factors such as market conditions, competition, and customer demand may impact sales performance. Therefore, ongoing evaluation and adaptation will be crucial to align our forecast with the evolving business landscape.

As we progress through Year 1, we regularly review and refine our sales forecast to ensure it remains aligned with our goals and market realities. By staying agile and responsive, we can capitalize on opportunities, address challenges, and maximize our sales potential in the strontium-based nuclear battery market.

### 5.1.4 Sales Plan

Successfully apply for two licenses required for strontium-based nuclear battery production by Month 1. Procure raw materials necessary for production by Month 5. Allocate 700,000 USD towards Research-Development and production activities. Secure a 2.5 million USD investment to support business operations. Strategies and Action Steps:

#### License Acquisition:

Identify the specific licenses and permits required for strontium-based nuclear battery production. Prepare comprehensive documentation and submit license applications promptly.



Engage with regulatory authorities to expedite the review process. Provide any additional information or clarification required for license approval. Raw Material Procurement:

Conduct market research to identify reliable suppliers of strontium and other raw materials. Establish partnerships with suppliers that meet quality and cost requirements. Negotiate favorable terms, including pricing, delivery schedules, and payment arrangements. Procure raw materials to ensure an adequate supply for production by Month 5.

Research-Development and Production:

Allocate the 700,000 USD to Research-Development and production activities. Conduct extensive research to optimize the efficiency and performance of strontium-based nuclear batteries. Test prototypes and refine the production process to meet quality standards. Implement rigorous quality control measures to ensure consistent product performance. Investment Acquisition:

Develop a compelling business plan highlighting the unique advantages of strontium-based nuclear batteries. Identify potential investors interested in sustainable energy solutions and advanced battery technologies. Present our business plan and investment proposal to potential investors, emphasizing long-term growth prospects. Collaborate with legal and financial advisors to negotiate investment terms and secure the 2.5 million USD investment. Key Milestones and Timeline:

Month 1: Submit license applications and initiate the review process. Month 5: Complete the procurement of raw materials. Throughout the year: Conduct Research-Development activities, refine the production process, and ensure product quality. Throughout the year: Engage in investor discussions and secure a 2.5 million USD investment.

Success Indicators:

- Timely acquisition of the required licenses within Month 1.
- Successful procurement of quality raw materials by Month 5.
- Effective utilization of the 700,000 USD budget for Research-Development and production activities.
- Securing a 2.5 million USD investment to support our business objectives.

Continuous Evaluation and Adaptation:

- Throughout Year 1, it is crucial to continuously evaluate our progress against the set objectives and adapt strategies as necessary. Regular communication with regulatory authorities, suppliers, and potential investors will provide valuable insights for refinement and adaptation. By remaining agile and responsive, we can position ourselves for success in subsequent years, setting the stage for increased sales and market growth.

## **5.2 Plan and Road-map for implementation**

Assuming all the research is proven for our design and we are to start a company by 2024, the plan for the first 6 is:

- **Year 1:** In the first year, no sales are anticipated, resulting in zero revenue.
- **Year 2:** Moving into the second year, sales are expected to increase, with approximately 800 batteries sold. This indicates a promising start and a potential revenue stream.
- **Year 3:** As the business progresses to the third year, the sales volume is projected to increase to approximately 1200 batteries. This demonstrates a steady growth trend and an expanding customer base.
- **Year 4:** By the fourth year, sales are expected to grow, with around 1300 batteries sold. This sustained upward trajectory signifies the increasing demand for the product.
- **Year 5:** In the fifth year, investments and improvements made to the battery product yielded significant results. It is projected that 2300 battery sales will be realized, indicating substantial revenue growth.
- **Year 6:** As the business enters its sixth year, further growth is expected, with around 2700 battery sales achieved. This demonstrates the successful implementation of strategies and the continued popularity of the product.

The visual description of the plan is depicted in Fig. 7.



Figure 7: Financial Milestones

### 5.3 Financial Resources Needed

We will need investment from an investor to subvert the negative effect on the cash due to the investments required at the inception of Radiant Power, where we will need a considerable amount of liquidity to acquire the necessary equipment, fund R&D, and licenses. Moreover, we must spend money on consultants and lawyers to facilitate license acquisition and

consumer base enrichment. Fig. 8 depicts these incidents via first- and seventh-month investments. However, the next bar represents the necessity to invest further in acquiring more assets to facilitate the following line of sales orders predicted to arrive.

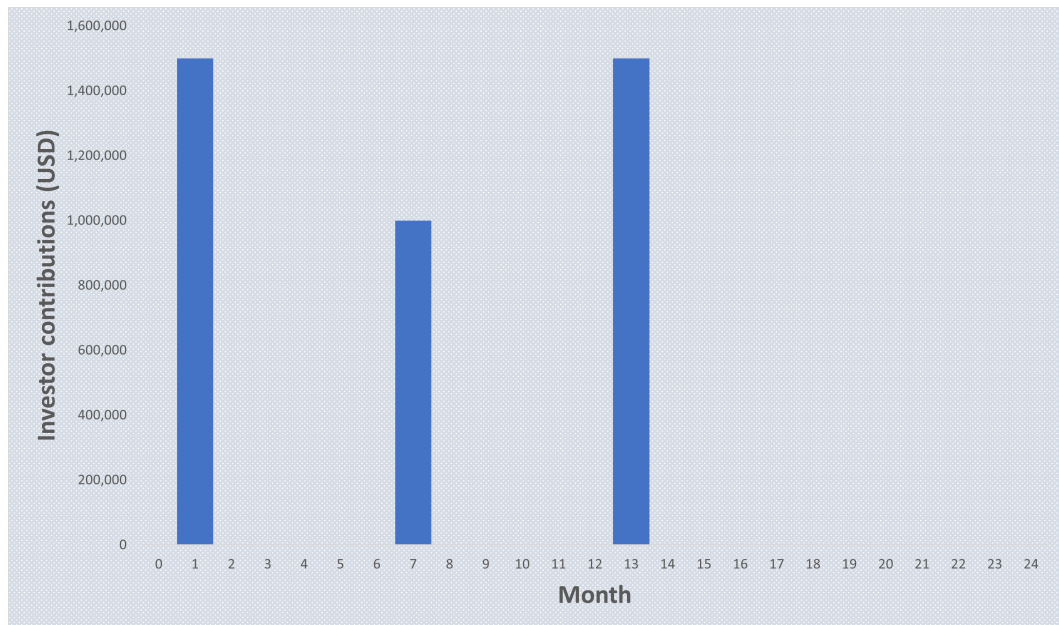


Figure 8: Investor contributions

Therefore, the company growth in the sixth year is projected at 7.3 million USD as shown in Fig. 9.

## FINANCIAL ANALYSIS

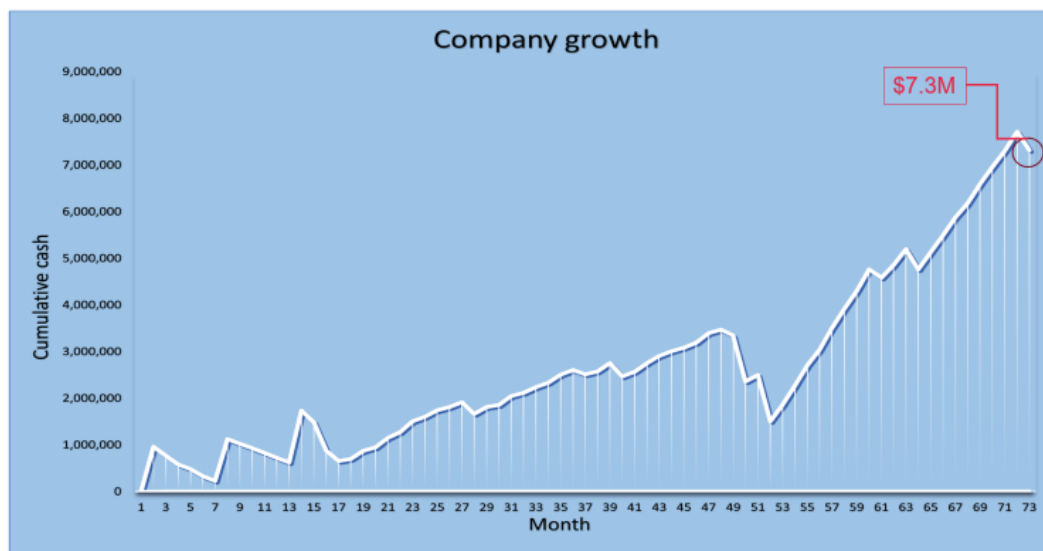


Figure 9: Financial Analysis

## **6 Conclusion**

In conclusion, Radiant Power's business report showcases its innovative nuclear battery technology and its potential to address critical challenges in various industries. The financial projections, marketing plan, and implementation roadmap demonstrate Radiant Power's commitment to sustainable growth and customer-centric solutions. By leveraging its unique value proposition and engaging in strategic partnerships, Radiant Power aims to establish itself as a leader in the nuclear battery market.

## References

- [1] Aurora Jahan. *Radiant Power Website*. <https://aurora-jahan.github.io/radiant-power-website/>.

## Appendix

Table 1: Investments and funds

Year	1	2	3	4	5	6
Initial cash	120,000	0	0	0	0	0
Investor contribution	2,500,000	1,500,000	0	0	0	0

Investments						
Tangibles	700,000	300,000	0	0	1,000,000	0

Depreciation & Amortization						
Tangibles	0	35,000	50,000	50,000	50,000	100,000

Gross tangible assets	700,000	1,000,000	1,000,000	1,000,000	2,000,000	2,000,000
Accumulated D&A	0	-35,000	-85,000	-135,000	-185,000	-285,000
Tangible assets	700,000	965,000	915,000	865,000	1,815,000	1,715,000

Table 2: Annual P&L

Year	1	2	3	4	5	6
EBITDA	-1,296,400	-48,500	1,014,500	1,089,500	2,853,500	3,517,000
D&A	0	35,000	50,000	50,000	50,000	100,000
EBIT	-1,296,400	-83,500	964,500	1,039,500	2,803,500	3,417,000
Interest	0	0	0	0	0	0
Taxes	0	0	192,900	207,900	560,700	683,400
EAT (Profit)	-1,296,400	-83,500	771,600	831,600	2,242,800	2,733,600

Table 3: Cash flow

Year	1	2	3	4	5	6
Initial cash	120,000	623,600	1,740,100	2,511,700	3,343,300	4,586,100
Investor contribution	2,500,000	1,500,000	0	0	0	0
Asset acquisition	-700,000	-300,000	0	0	-1,000,000	0
EAT	-1,296,400	-83,500	771,600	831,600	2,242,800	2,733,600
Final cash	623,600	1,740,100	2,511,700	3,343,300	4,586,100	7,319,700

Table 4: Important highlights

Activity	Research	Commercial operation				
Parameter	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Sales	0	800	1,100	1,200	2,200	2,530
Earnings after taxes	-1,296,400	-83,500	771,600	831,600	2,242,800	2,733,600
Asset Acquisitions	-700,000	-300,000	0	0	-1,000,000	0
Owner contributions	120,000	0	0	0	0	0
Investor contributions	2,500,000	1,500,000	0	0	0	0
Company growth (cash)	623,600	1,740,100	2,511,700	3,343,300	4,586,100	7,319,700