

No.: 2686/QD-PVCFC

Ca Mau, October 20<sup>th</sup>, 2023

**DECISION**

**Approving Operations, production and business plan by 2025 of  
PetroVietnam Ca Mau Fertilizer Joint Stock Company**

**BOARD OF DIRECTORS  
PETROVIETNAM CA MAU FERTILIZER JOINT STOCK COMPANY**

*Pursuant to Charter of PetroVietnam Ca Mau Fertilizer Joint Stock Company  
(PVCFC) adopted by the General Meeting of Shareholders;*

*In consideration of the Minutes summarizing opinions no. 13/BBTH-HDQT dated  
October 19<sup>th</sup>, 2023 of the Board of Directors of PVCFC.*

**DECIDED:**

**Article 1.** Approving the Operations, production and business plan by 2025 of PVCFC, as detailed in the attached Appendix.

**Article 2.** The General Director is to direct the relevant Committees/Offices within PVCFC to organize the implementation of the ensuing objectives, as outlined in the approved Article 1, in compliance with regulations of PVCFC and prevailing laws.

**Article 3.** This Decision is effective from the date of signing and supersedes Decision no. 1291/QD-PVCFC dated May 29<sup>th</sup>, 2023 of the Board of Directors on the temporary approval of the 2021 - 2025 Five-Year Plan of PetroVietnam Ca Mau Fertilizer Joint Stock Company.

**Article 4.** The Board of General Directors, Head of Committees, units within PVCFC are to carry out this Decision./.

**C/c:**

- As Article 4;
- Party Committee (to report);
- BOD;
- Supervisory Board;
- Filed: Archive, BOD.

**Attachment:**

- Appendix: Operations, production and business plan by 2025 of PVCFC.

**FOR BOARD OF DIRECTORS  
CHAIRMAN**

*(Signed & Sealed)*

**Tran Ngoc Nguyen**

**APPENDIX:**  
**OPERATIONS, PRODUCTION AND BUSINESS PLAN BY 2025 OF  
PETROVIETNAM CA MAU FERTILIZER JOINT STOCK COMPANY**

*(Attach to Decision No. 2686/QD-PVCFC dated October 20<sup>th</sup>, 2023 of the BOD)*

**I. Development perspectives.**

- Commit to providing nutritional solutions for plants that bolster food security of Vietnam.
- Foster the Company's growth with a governance model aligned with international standards, supporting the State's Tam Nong policy, and driving towards the modernization, sustainable, and eco-friendly agricultural development.
- Advance the chemical sector and embrace clean energy initiatives, aligning with the global energy transition trend and the development orientation of the Vietnam Oil and Gas Group.
- Prioritize the sustainable development of the fertilizer sector, expand selective investment in agricultural value chains to enhance added value, and boost production and business efficiency.
- Focus on developing branded, high-quality products that align with emerging technological trends, eco-friendly.
- Commit to maintaining Trust with customers as a dependable resource for farmers.
- Uphold a strong sense of responsibility towards the community and society, strive for a balance of interests, demonstrate readiness to share responsibility with stakeholders.

**II. Development perspectives.**

**1. Overall objectives:**

Foster the Company's growth to become one of the leading corporations in fertilizer production and trade in Vietnam and Southeast Asia.

**2. Specific objectives:**

**2.1. Production operations:**

- Operate the Ca Mau Fertilizer Plant in an efficient, safe, and stable manner. Commit to a progressive improvement and optimization of production, energy-efficient with the objective of achieving a 5% reduction in energy consumption by 2025, relative to the 2022 benchmark.
- Ensure the safe and stable operation of complex fertilizer plants utilizing NPK molten urea, tailored to meet the full spectrum of business requirements. Engage in research and initiate the production of a suite of specialized NPK fertilizers, catering to rice, industrial crops, vegetables, and a premium NPK suite formulated using NPK 16-16-8, NPK 15-15-15, NPK 20-10-10, and NPK 20-20-15 formulas.
- By 2025, identify alternative raw material sources to supplant the current gas sources.

- By 2025, introduce at least 01 new chemical/petrochemical product based on the existing factories' technological capabilities.

## **2.2. Business and market development:**

- Aim for an average annual revenue increase of 20%, reaching 20 trillion VND by 2025. Concentrate efforts on 03 primary product groups: (i) Urea and Urea-based products, (ii) NPK fertilizers, and (iii) Business products catering to market demands.

- PVCFC's market share in Vietnam's fertilizer sector: secure at least 11% by 2025 (approximately 1.18 million tons).

- By 2025, position PVCFC as the premier brand for comprehensive crop nutrition solutions (nutrition products and high-tech agricultural services) based on digital platforms in the Vietnamese market.

- Ca Mau Fertilizer brand development objectives for target markets and customers:

- + Increase the brand awareness of Ca Mau Fertilizer among target customers to 65% by 2025 (applicable to the Southwest, Southeast, Central Highlands regions of Vietnam, and Cambodia).

- + Highest level of Top of Mind (TOM) awareness of Ca Mau Fertilizer: reaching Top 1 position by 2025.

- Actively expand into export markets across neighboring countries and regions, offering a diverse range of fertilizers based on urea and NPK formulations.

- Lay the groundwork to engage in the development and provision of operation and maintenance services for both domestic and international corporations in the same industry. Engage in high-level agricultural consulting services, engage in the safe agricultural production value chains, thereby driving the Company's growth.

## **2.3. Investment:**

- Engage in research and investment activities, capital contributions, and joint ventures to establish an additional NPK factory to improve competitive advantage, secure a long-term market advantage for high-quality fertilizer product lines, thereby increasing the value chain and boosting the Company's revenue.

- Factories dedicated to the production of soluble fertilizers and foliar fertilizers: Implement the strategy to diversify fertilizer products, increase competitive advantage, expand the value chain, reduce market risks, and ensure revenue growth targets in alignment with the Company's long-term business strategy.

- Industrial gas production project at Ca Mau Fertilizer Plant: Implement in conjunction with the strategic objective to diversify production raw materials, the Company is undertaking research for the recovery Nitrogen and Argon from Off-gases and refining to industrial standards, meeting the increased operational demands of Urea and Ammonia factories in the future and the domestic industrial gas market's demands, thereby improving raw material source efficiency, aligning with the Group's energy transition goals.

- Food CO2 project: Implement the strategy to diversify fertilizer products, optimize raw material sources and Factory utilities, thereby increasing revenue and profitability.

- PetroVietnam Ca Mau Fertilizer Joint Stock Company – LC Employee Housing Project and Investment project to construct a swimming pool within employee housing area: Complete facilities, housing fund for employees, fostering the best working environment that ensures job security, effectively fulfills the Company’s human resources and welfare objectives.

- Ho Chi Minh City Communication Station head office: Project investment in Ho Chi Minh City that aligns with business demands and has a scale that meets the Company’s development strategy.

- Green Hydrogen production project (Green Hydro): Optimize the raw material input efficiency at the Fertilizer Plant, in line with the Group’s energy transition goals, enabling the application of green technology in existing production lines.

- Make selective investments in the logistics infrastructure to bolster the distribution systems’ capacity and efficiency, ensure timely transportation and delivery of products to customers.

- Conduct research and assessments to explore investment opportunities in projects that can provide alternative raw material sources to supplant the current gas sources.

- Establish a Center dedicated to the research, application, and transfer of high-tech agricultural production technologies. This center shall actively engage in the research, testing, and experimentation of organic fertilizer product lines and micro-organic products, fostering growth and promoting sustainable agricultural development.

- Expand the roof of the raw material import port at the Ca Mau Fertilizer Plant: This expansion is aimed at enhancing the plant’s capacity for importing/exporting products.

- Online conference hall & meeting room project: Invest in the construction and research of an online conference hall and meeting room to foster initiative in work, improve the quality of facilities; meeting the Company’s growth scale and ensuring the efficient use of investment capital.

#### **2.4. Research and development:**

- Formulate and execute strategies for new product development with a focus on:
  - + Enhance the variety of NPK fertilizer products, each with unique properties to deliver comprehensive plant nutrition and has competitive advantages over other premium NPK brands in the market;

- + Successful development of organic and micro-organic product suites;

- + Conduct research and manufacture biological products with agronomically beneficial and environmental efficiency traits, ensuring food safety and hygiene at cost-effective rates.

- Assemble a comprehensive dataset for agricultural production, provide crop nutrition solutions that leverage scientific and technological advancements, aligning with the trends of the 4.0 industrial revolution.

#### **2.5. Digital transformation:**

- Finalize the construction of the data-warehouse database and integrate application systems based on the information technology platform:

+ 2021-2023 period: Integrate application systems to a unified information technology platform (SAP PM, ERP, DMS, and Eoffice; implement the Next-gen IT Operating Model; Automated integration of processes, operations, etc.). Set up Datalab, Datawarehouse (simplifying Datawarehouse and applying O1 data analysis tool for effective data exploitation; create data analytics roadmap that progresses from Prescriptive analytics to Predictive Analytics; Expand the Datawarehouse model in conjunction with Data Lake).

+ 2024-2025 period: Full integration of the Datawarehouse database with application systems to bolster administrative functions; Standardize centralized data systems to facilitate comprehensive analysis and forecasting; Finalize a common Datawarehouse (DWH) model applicable across the entire Company.

## **2.6. Human resource development:**

- Cultivate a team of experts tailored to the actual demands of the Company's production and business operations and growth strategies. By 2025, the team will comprise at least 30 experts.

- Cultivate backup personnel system for critical roles, ensuring that each pivotal position is supported by a minimum of 02 qualified successors or alternates.

- Effectively develop compensation policies that appeal to and attract workers: aiming to achieve an 80% satisfaction rate among employees regarding the Company's compensation policy by 2025.

- Maintain PVCFC's corporate culture, which is deeply rooted and distinctive in its identity. This involves refining and championing the core values of "Pioneer - Responsibility - Consideration - Harmony".

## **3. Main tasks:**

- Operate Ca Mau Fertilizer Plant in an efficient, safe, and stable manner, commit to continuous improvement and optimization of production processes; maintain safe and stable operations of the NPK workshop to fully meet market demands. Aim to expand production and increase the output of both inorganic and organic fertilizer lines, in line with the targets for the 2021-2025 period.

- Initiate solutions to identify alternative raw material sources for PM3-CAA gas upon feasibility and effectiveness assessments.

- Initiate project implementation only after receiving investment efficiency reports under the strategic plan for the 2021-2025 period.

- Elevate the "Ca Mau Fertilizer - Golden Season Pearl" brand to a leading position in the domestic market and increase its recognition in the region. Establishing a strong presence and maintaining dominance in key domestic markets, develop efficient distribution channels and enhance the nationwide reach of the Ca Mau Fertilizer suite by harnessing advanced and modern IT platform integrated with the Ca Mau Fertilizer e-commerce system.

- Diversify the range of consulting services to include operation and maintenance for similar factories; high-level agricultural services, engage in the safe agricultural production value chains.

- Formulate long-term research and development strategies, research and

development of new products towards diversifying NPK fertilizer products, mineral organic fertilizers, and micro-organic fertilizers, and high-quality fertilizer lines that meet the Company's strategic orientation.

- Successfully cultivates PVCFC's corporate culture, which is deeply rooted and distinctive in its identity. This involves refining and championing the core values of "Pioneer - Responsibility - Consideration - Harmony".

#### **4. Solutions:**

##### ***4.1. Solutions for corporate governance:***

- Elevate PVCFC's management efficiency by embracing internationally recognized corporate governance practices, focusing on:

- + Commit to applying best Corporate Governance Practices;
- + Develop and publish Code of Ethics and Business Conduct;
- + Improve information disclosure in the annual report to showcase the Company's commitment to sustainability criteria (ESG); stakeholder interests governance policy;

+ Strengthen the functions of the newly established Internal Audit department.

- Application of digital technology across all facets of the Company (management, governance, production and business operations) to enhance efficiency, optimize performance, and elevate business value. Focus on developing a unified database to facilitate data analysis, governance, and to significantly improve the quality and effectiveness of decision-making processes.

- Uphold and cultivate PVCFC's cultural identity, deeply rooted in the core values of "Pioneer - Responsibility - Consideration - Harmony." Embrace the social responsibility towards the community by connecting the interests of farmers with the Company's production and business results.

##### ***4.2. Financial solutions:***

- Transition to IFRS international financial reporting standards; enhance the management reporting system; utilize financial analysis as the cornerstone for informed decision-making.

- Formulate plans for cash flow management and debt restructuring; minimize risks caused by exchange rate volatility.

- Improve management capabilities and application of information technology in financial risk control; ensure financial targets are at a safe and growing level.

- Improve management capacity and application of information technology in financial risk control; ensure financial targets are on track and poised for growth.

- Secure adequate capital for the Company's production, business, and development endeavors. Optimize the funding structure and efficient use of capital.

##### ***4.3. Investment solutions:***

- Implement synchronized investment Portfolio management to optimize resource utilization and monitor investment efficiency.

- Prioritize new investment projects characterized by low capital requirements,

brief investment periods, rapid capital recovery, and avoid spreading investment.

- Conduct investment research aimed at leveraging CO<sub>2</sub>-rich emissions from entities within the Gas-Power-Fertilizer cluster (Power Plants and Gas Plants) to produce Urea and food-grade CO<sub>2</sub>.

#### ***4.4. Human resource training and development solutions:***

- Personnel planning for suitable personnel; satisfy requirements; develop qualifications framework and devise training and development programs for experts, ensuring alignment with the established roadmap for expert training and development.

- Standardize internal training programs: develop Training Matrix; electronic library; online learning system (E-learning).

- Promote the use of coaching techniques to nurture employee development; increase productivity and performance.

- Conduct a thorough review and update of job title descriptions and the qualifications framework; Assign personnel to roles that best suit their skills and competencies.

- Assess the risks associated with employee turnover to devise strategies to recruit, train, and cultivate the necessary skills for employee backups; seamless transition of expertise in preparation of the company's future development strategies.

#### ***4.5. Scientific and technological solutions:***

- Establish a Center dedicated to the research, application, and transfer of high-tech agricultural production technologies. This center shall actively engage in the research, testing, and experimentation of organic fertilizer product lines and micro-organic products, fostering growth and promoting sustainable agricultural development.

- Focus on consolidating and strengthening the organizational structure to manage the Research and Development Center's operations more effectively.

- Implement long-term scientific research programs (group I and group II scientific research topics and tasks as outlined) for breakthroughs in technology and development of new products).

- Execute innovation initiatives, optimize operations of the Ca Mau Fertilizer Plant: reduce machine downtime, lower energy consumption, boost plant performance beyond the current benchmarks, thereby increasing operational efficiency and promoting sustainable development.

#### ***4.6. Environmental safety and sustainable development solutions:***

- Pursue research, application, and deployment of new technologies aimed at enhancing productivity, product quality; lower production costs, develop new products; expand investment activities in line with environmentally friendly renewable energy trend.

- Pursue research, identify solutions for technical improvements in production technology to conserve fuel resources, minimize environmental emissions. Implement strategies/programs to mitigate and adapt to climate change. Strict compliance with safety, health, and environmental legislation.

- Conduct project environmental impact assessments to ensure that equipment

and production systems comply with Vietnamese regulations, standards, State requirements, and provisions of law.

- Carry out environmental impact assessments in research projects to ensure equipment; The production system complies with Vietnamese regulations, standards and State and legal requirements.

- Operate the Occupational Health and Safety Management system effectively in accordance with OHSAS 18001:2007 standards.

- Maintain and continuously improve the ISO 14001:2015 - Environmental Management System.

- Explore opportunities and formulate action plans to support Vietnam's commitment at COP26 to achieving net-zero emissions by 2050 and to reduce greenhouse gas emissions in accordance with Decree no. 06/2022/ND-CP. Develop a research and investment strategy to reduce CO2 emissions through two main approaches:

  - + Reduce or optimize the use of existing natural gas sources via optimization solutions; conserve energy and increase Plant capacity.

  - + Apply green hydrogen production technology to reduce and potentially supplant part or all of the existing natural gas sources, contributing to the reduction of CO2 emissions during the production process.

#### ***4.7. Market solutions:***

- Execute activities to increase the market share of Ca Mau Fertilizer in several aspects: Branding and communication; Trade marketing and Building sales team to expand reach (geographic coverage and increase the number of level 2 agents); Boost sales volume per level 2 agent; foster customer loyalty with consumer (farmer)-centric activities and increase brand activations at level 2 agents.

- Expand efforts to raise brand awareness for Ca Mau Fertilizer among target demographics, key regions: Southwest, Southeast, Central Highlands, and Cambodia. Implement Promotional activities for the Ca Mau Fertilizer experience model (pilot model); Industry communication with a focus on NPK, engage with social media platforms, and lead communications for advanced agricultural solutions

- activities to increase Ca Mau Fertilizer brand recognition for target customers and key areas: Southwest, Southeast and Central Highlands, Cambodia. Implementing communication activities for the Ca Mau Fertilizer experience model (demonstration model); Product communication (focusing on NPK); Social media platform communication; Top agricultural solutions communication, etc.

- Organize communication programs that generate favorable public opinion and enhance public understanding of the value of Ca Mau Fertilizer's comprehensive nutritional solutions. Customer engagement with digital customer experience platforms; PR content centered around "agricultural engineering - comprehensive nutritional solutions"; Develop a dedicated digital platform for Ca Mau Fertilizer; Pilot model of comprehensive nutritional solutions to improve customer experience.

- Further promote communication activities across online and traditional sales channels to educate farmers on optimizing fertilization and cultivation practices; advocate for the use of organic fertilizers in the context of high inorganic fertilizer



prices. Continue with sales promotion; farmer support programs to decrease input costs; encourage farmers to reinvest on farm.

- Invest in Warehousing Projects to take a proactive approach to storage, management, and optimization of logistics costs; coordinate the distribution of products from warehouses to customers within the region.

- Implement and apply information technology tools for business operations; increase efficiency and management competency of business operations.

- Persist in transitioning towards and implementing end consumer (farmer)-oriented new business models. This shift provides a valuable opportunity to engage with, support, and gain a deeper understanding of end customers, allowing for a more proactive approach to business.

- Diversify the range of unique business products on the market; increase revenue. Focus on the following product suites:

- + For NPK products, continue research and development of NPK product group, which serves as a strategic entry point to penetrate and expand market share. By planning an M&A deal for an additional NPK factory alongside the Ca Mau NPK factory, PVCFC aims to create a competitive advantage in output scale, thereby enhancing its ability to control and dominate the domestic NPK consumption market.

- + For organic and micro-organic products, continue research and distribute proper suites of organic and micro-organic products; position these products to contribute to the improvement of soil environment, enabling better plant growth.

- + For comprehensive suite of crop nutrition solutions, continue research and expand product group to include soluble fertilizers, foliar fertilizers, and various preparations for disease treatment; plant care; embracing high-tech agriculture./.