

IPERIONX SELECTS VIRGINIA FOR AMERICA'S FIRST 100% RECYCLED, LOW CARBON TITANIUM METAL FACILITY

- IperionX is pleased to announce that Halifax County, Virginia, is the preferred location for the development of its first commercial scale 100% recycled, low carbon titanium metal powder operation ("Titanium Demonstration Facility").
- The Titanium Demonstration Facility will be the first titanium metal operation using 100% recycled titanium metal scrap as raw material feedstock in the U.S., and is a critical step in advancing IperionX's ambition to re-shore an all-American source of low carbon titanium metal.
- A ready made building at the Southern Virginia Technology Park, near South Boston, provides IperionX with an outstanding location to scale up its low carbon titanium metal production, with direct access to major highways, a large talent pool, high quality infrastructure and access to 100% renewable power.
- Potential incentives from Virginia include a construction allowance of US\$4 million from the Halifax Industrial Development Authority to upfit the site to be 'development ready', a US\$300,000 grant from the Virginia Commonwealth's Opportunity Fund and a grant for US\$573,000 from the Tobacco Region Opportunity Fund.
- Phase 1 capital for production capacity of 125 tpa from the Titanium Demonstration Facility is estimated to be US\$20 million, including contingency, and the forecast production costs for low carbon titanium metal powders is estimated to be approximately US\$120/kg.
- IperionX has commenced early design and engineering for a modular expansion of the Titanium Demonstration Facility to meet potential market demand for a Phase 2 modular expansion.



Figure 1: Titanium Demonstration Facility site at the Southern Virginia Technology Park, South Boston, Virginia
Anastasios (Taso) Arima, CEO and Managing Director said:

"We are delighted to have chosen South Boston and Halifax County as the site for our inaugural titanium demonstration facility, which is a critical step in advancing IperionX's ambition to re-shore an all-American source of titanium metal. We are highly appreciative of the support and welcome that we have received from our partners and stakeholders in Virginia and look forward to establishing IperionX as a leader in advanced manufacturing in our new home."

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Tennessee Office

279 West Main St, Camden, TN 38320

Salt Lake City Office

1782 W 2300 S, West Valley City, UT 84119

Governor of Virginia, Glenn Youngkin said:

“We are thrilled to welcome IperionX to the Commonwealth. The new Halifax County operation will represent the first titanium metal powder facility in the U.S. using 100% recycled titanium scrap as feedstock, putting Virginia on the map for providing a critical material that is essential for our advanced industries. “We look forward to supporting this forward-thinking company that will develop a new supply chain of titanium right here in the Commonwealth while creating high-quality jobs.”

U.S. Senator for Virginia, Tim Kaine said:

“IperionX Limited’s expansion in Halifax County will create over 100 new jobs and help boost economic development in Southside. My office was glad to be involved with interfacing with the Department of Defense to identify opportunities to expand this business in Virginia and I look forward to seeing the positive impacts of this move in the future.”

U.S. Senator for Virginia, Mark Warner said:

“I am proud that Virginia will be home to a state-of-the-art titanium demonstration facility that will shore up domestic supply chains for emerging technology in a forward-thinking, sustainable way while creating jobs and opportunities in Halifax County.”

IperionX Limited (“IperionX” or “Company”) (Nasdaq I ASX: IPX) is pleased to announce that it has selected the Southern Virginia Technology Park, in Halifax County, Virginia, near the town of South Boston, as the preferred location for the development of America’s first 100% recycled, low carbon titanium manufacturing development (“Titanium Demonstration Facility”).

IperionX undertook an extensive site selection process across the continental U.S. to secure the ideal site for the development of the Titanium Demonstration Facility. Over 250 sites in over 30 states were evaluated for cost, site readiness, expansion capability, access to infrastructure and potential financial incentives.

Subject to completion of binding documentation, IperionX has selected a 50,000-square-foot site at the Southern Virginia Technology Park, in Halifax County, Virginia, near the town of South Boston.

The site at the Southern Virginia Technology Park provides IperionX with an excellent location to scale up its titanium metal production, with direct access to major highways, a large talent pool, high quality infrastructure and 100% renewable power. The state, county and local authorities have provided an attractive incentive package to locate the site in Halifax County, VA.

Virginia & Halifax Proposed Incentive Package

The Virginia Economic Development Partnership (VEDP) worked with Halifax County, the Southern Virginia Regional Alliance, the Virginia Department of Environmental Quality, and Virginia Department of Energy to develop an incentive package for IperionX to locate the Titanium Demonstration Facility in Halifax County Virginia.

The Governor of Virginia, Mr. Glenn Youngkin, has approved a US\$300,000 grant from the Virginia Commonwealth’s Opportunity Fund to assist Halifax County with the project. The Virginia Tobacco Region Revitalization Commission approved a grant for US\$573,000 from the Tobacco Region Opportunity Fund for the project.

The Company is also eligible to receive state benefits from the Virginia Enterprise Zone Program, administered by the Virginia Department of Housing and Community Development. Funding and services to support the company’s employee training activities will be provided through the Virginia Jobs Investment Program. The Virginia Department of Environmental Quality, Virginia Department of Energy, and Virginia Clean Cities also oversee financial incentive programs that can support the Company’s commitment to decarbonization and the circular economy.

Further, the Halifax Industrial Development Authority (“Halifax IDA”) has proposed a construction allowance of US\$4 million to upfit the site to meet the needs of the Titanium Demonstration Facility. The Halifax IDA would then provide a ten-year lease agreement to IperionX, with an estimated annual lease rate of just US\$8.00 per square foot.

Final confirmation of the site selection and financial offer is subject to the negotiation and execution of a binding performance agreement between the Commonwealth of Virginia, the Virginia Economic Development Partnership and IperionX, anticipated to be finalized in the coming months. In order to receive all proposed financial incentives, IperionX will be required to invest approximately US\$82 million in production related machinery and tools and create 108 jobs within a 36 month timeframe.

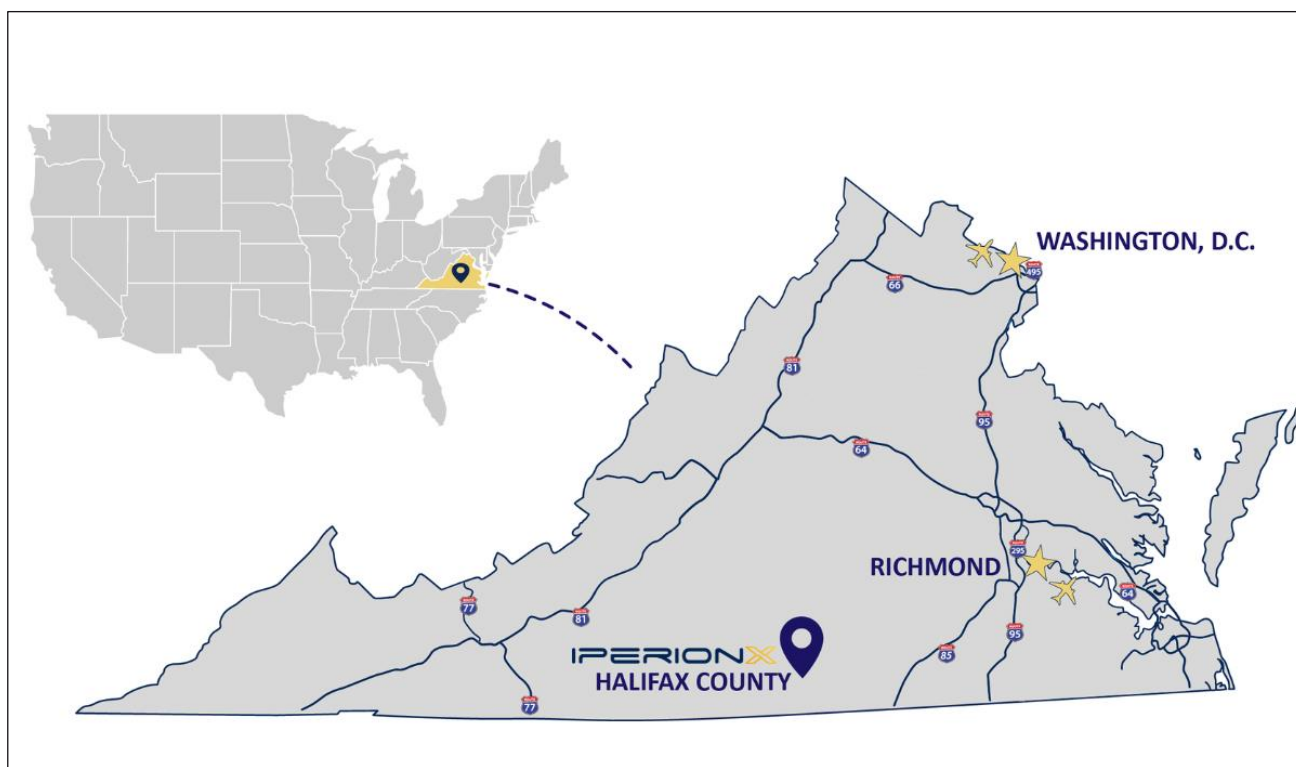


Figure 2: Titanium Demonstration Facility location in Halifax County, Virginia

Titanium Demonstration Facility Overview

The Titanium Demonstration Facility will be the first titanium manufacturing plant in the U.S. utilizing 100% recycled titanium scrap as feedstock, and is a critical step in advancing IperionX's ambition to re-shore an all-American source of low carbon titanium metal. Phase 1 of the Titanium Demonstration Facility is expected to have an initial production capacity of 125 tonnes per annum ("tpa") of titanium metal powder in spherical or angular form. The current pricing for spherical titanium metal powders used in additive manufacturing applications today is approximately US\$250 per kg.

The forecast capital cost to build the Phase 1 of the Titanium Demonstration Facility is US\$20 million with an associated forecast operating cost of US\$120/kg (further information can be found in Appendix A). Development of the Titanium Demonstration Facility is anticipated to generate significant employment opportunities in the U.S., with a Phase 1 headcount estimate of 31 employees, estimated to scale to over 100 employees.

IperionX has commenced early design and engineering for a modular expansion of the Titanium Demonstration Facility to a commercial scale to meet potential market demand.

IperionX is assessing potential development funding pathways for Phase 1 of the Titanium Demonstration Facility, including both commercial and U.S. Government opportunities, such as funding through U.S. Federal budgets, U.S. Federal funding bills and specific U.S. Federal agency funding programs.



Figure 3: Phase 1 Titanium Demonstration Facility isometric view

This announcement has been authorized for release by the Board.

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About IperionX

IperionX's mission is to be the leading developer of low carbon, sustainable, critical material supply chains focused on advanced industries including space, aerospace, electric vehicles and 3D printing. IperionX's breakthrough titanium technologies have demonstrated the potential to produce titanium products that are sustainable, 100% recyclable, have low carbon intensity and to do so at product qualities that meet or exceed current industry standards. IperionX is producing titanium metal powders from titanium scrap at its operational pilot facility in Utah, and will be rapidly scaling the production from this facility in 2022. The Company also holds a 100% interest in the Titan Project, covering approximately 11,100 acres of titanium, rare earth minerals, high grade silica sand and zircon rich mineral sands properties in Tennessee.

Forward Looking Statements

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as “may”, “will”, “expect”, “intend”, “plan”, “estimate”, “anticipate”, “continue”, and “guidance”, or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company’s actual results, performance, and achievements to differ materially from any future results, performance, or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management’s good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company’s business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company’s business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company’s control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements, or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Appendix A: Titanium Demonstration Facility

Titanium Demonstration Facility Process Design

The Titanium Demonstration Facility is based upon a scale up of the existing Pilot Facility operations in Salt Lake City, UT which have been managed IperionX since January 2022 and have been in operation since 2019. The Titanium Demonstration Facility and the Pilot Facility are based upon the proprietary titanium metal technologies developed by Dr. Zak Fang at the University of Utah, with Department of Energy funding received for the build out of the Pilot Facility.

The Titanium Demonstration Facility will manufacture titanium metal powders via a simple thermomechanical process using off the shelf technology and incorporating the breakthrough hydrogen assisted metallothermic reduction (HAMR) process developed by Dr. Zak Fang. The steps of the process to produce spherical powder will be to initially receive hydride titanium metal scrap which will then go through a process of size reduction before being milled in water. This milled slurry will then be spray dried into spherical powders which are then sintered ahead of entering the HAMR furnace for deoxygenation. The deoxygenated powders are then post processed before being ready to be packaged for transportation to customers.

Detailed engineering work has been completed by IperionX and its consultants on the scale up including process flow diagrams, mass & energy balance, mechanical equipment needs and power requirements, Hazop / safety analysis and other key engineering work to plan for the buildout of this facility.

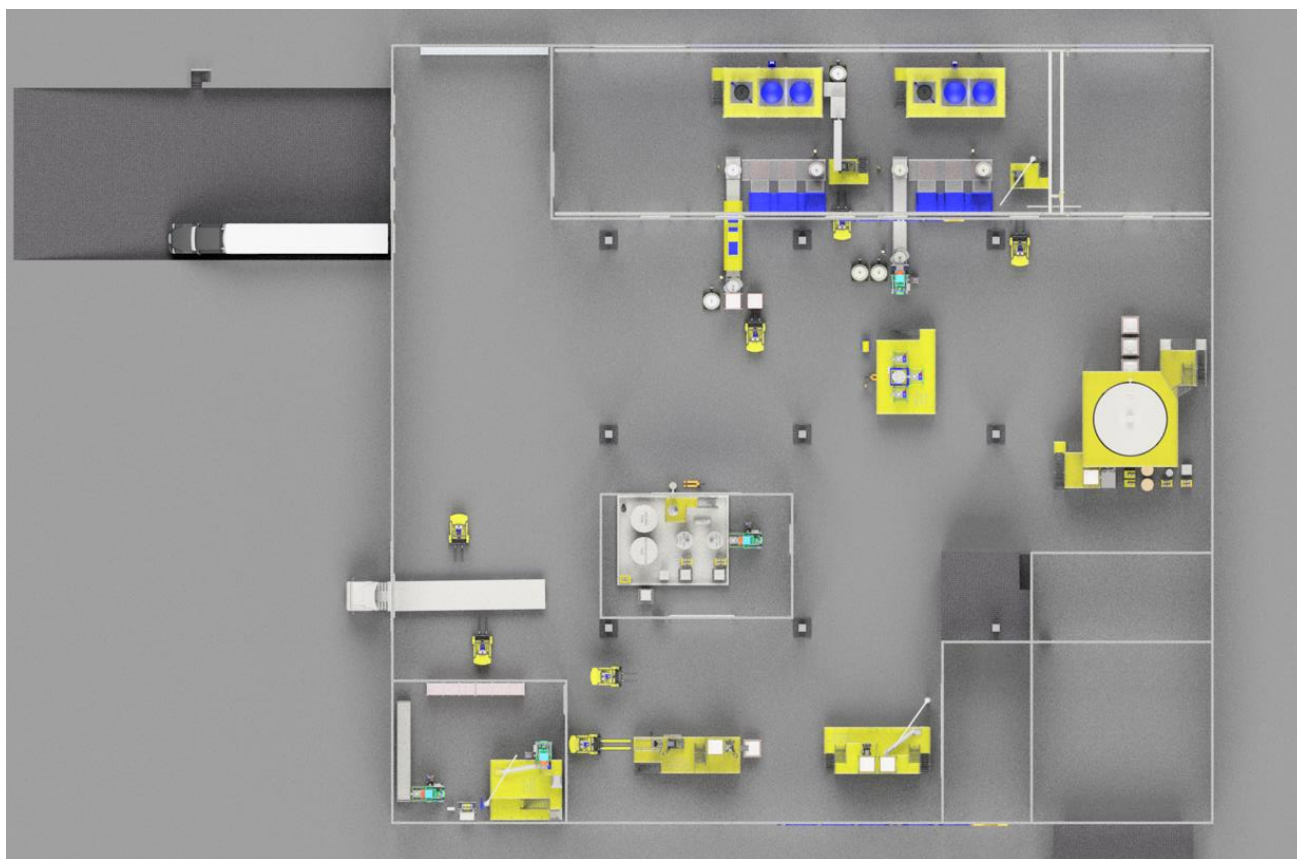


Figure 4: Phase 1 Titanium Demonstration Facility plan view

Titanium Demonstration Facility Process Design & Development Consultants

Phase 1 of the Titanium Demonstration Facility engineering and design has been led by Performance Industries, Inc., a specialist U.S. engineering firm with a long track record of successfully designing and delivering major industrial manufacturing projects, supplemented with a number of specialist consultants to deliver a robust process design and project development plan.

Consultant	Company	Area of Expertise
Chris Foley	Performance Industries	Engineering, design and materials handling
Richard Westbrook	Performance Industries	Materials handling & heat treatment
Thomas Wingens	Wingens LLC	Furnace design & selection
Kathy Shell	Process Safety Core Consulting	Health & safety
Scott Sparks	IperionX	Project management
Mike Moyer	IperionX	Chemical engineering
Hyrum Lefler	IperionX	Process design
Zak Fang	Blacksand Technology	Process design
Pei Sun	Blacksand Technology	Process design

Capital Cost Estimate

Capital cost area	US\$m
Equipment	8.1
Materials	1.8
Freight	0.6
Installation & Owners Costs	5.5
Total	16.4
Contingency (22%)	3.6
Total capex	20.0

The Phase 1 capital cost estimate has been developed by Performance Industries in conjunction with IperionX's other consultants, and is stated in 2022 real terms. Over 70% of the cost estimation for the direct equipment is based upon vendor quotes or direct pricing.

The primary direct equipment costs include deoxygenation furnaces, with the deoxygenation cost area making up US\$3.2 million of the direct costs. Other major cost areas are spray drying, including the purchase of a new spray dryer, as well as crushing, milling, leaching, drying and final processing. An additional deoxygenation furnace is planned to be purchased and installed in year 2 of the Titanium Demonstration Facility operations for ~US\$3.2 million to allow for the full 125tpa capacity to be met for spherical powder production.

In addition to direct equipment, the capital cost estimate also includes costs for piping, instrumentation, fabricated structures, control room, HVAC / ventilation, blast doors and dust collection. Further, building office space, building utilities, foundations, electrical and erection and installation are captured in the estimate.

Installation & owners costs of US\$6.0 million have been included, with a 19% contingency applied to direct equipment and a 25% contingency applied to all other capital cost areas.

Operating Cost Estimate

Operating cost area	Annual cost US\$m	Unit cost US\$ / kg
Operating Labor	4.4	35.3
Tolling services	4.1	32.9
Feedstock (Ti Scrap)	1.5	12.4
Chemicals & reagents	0.8	6.6
Power & utilities	0.5	3.8
Other	1.8	14.6
Contingency	1.8	14.4
Total	15.0	120.0

Operating labor

Operating labor includes the hiring of a full time local workforce to manage, operate and maintain the Titanium Demonstration Facility, including a General Management staff, engineers, operators, maintenance technicians and health, safety, and environment ("HSE") professionals. The total Phase 1 headcount is anticipated to be 31 full time employees.

It should be noted that labor rates have been based upon major manufacturing centers in the U.S., with the potential for a reduction in average annual cost associated with labor rates for employees regional to the Company's proposed Titanium Demonstration Facility development site in Halifax County, VA.

Tolling services

Development of Phase 1 of the Titanium Demonstration Facility assumes that tolling and hydride / dehydride services for the production of titanium metal powders are outsourced. There is an opportunity to reduce these costs by in-housing these services, the estimated cost to bring in-house these services is US\$3.0 million.

Feedstock

The primary Titanium Demonstration Facility feedstock to enable a 100% recyclable titanium supply chain is titanium metal in the form of titanium scrap. Titanium scrap price assumptions are based upon discussion with potential suppliers and current sourcing contracts from the company's Pilot Plant operations in Utah. The company does not foresee challenges in efficiently sourcing titanium scrap given the relatively small scale of the Titanium Demonstration Facility's titanium scrap demand as a proportion of the U.S. titanium scrap market.

Chemicals & reagents

Major chemicals and reagents for the process are all common inputs and reagents in industrial production applications.

Power & utilities

The Company has assumed that power can be supplied through the existing grid through 100% renewable sources, which has been confirmed for the Titanium Demonstration Facility development site in Halifax County, VA. Incremental costs associated with the sourcing of 100% renewably generated power have been included in the operating cost estimate.

Other

Other operating costs include an allowance for repairs, maintenance, outside services and other costs related to maintaining the operation of the Titanium Demonstration Facility and are standard for a building of this size and scale in Virginia.

Contingency

Operating costs have been estimated at a +/- 30% level of confidence. Additional contingency has been incorporated into the operating cost estimate as an allowance for incremental costs associated with the commercialization of novel technologies.

Expansion Potential

Initial engineering and design estimation has been undertaken for a Phase 2 expansion of the Titanium Demonstration Facility to a commercial scale to meet potential customer demand. Given the Titanium Demonstration Facility design as a single line operation, it is likely that any future expansion can be undertaken in a phased and modular manner.