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Australian Government

Department of Foreign Affairs and Trade

MINISTER FOR TRADE AND TOURISM VISIT BRIEF

**As at 16 August 2024*



Trade-related Engagements

Chicago, 18–22 August 2024

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VISIT OVERVIEW

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In meeting these businesses, such as CSL Behring and PsiQuantum, you may wish to advocate Australia's vital economic relationship with the United States, as a trusted partner in trade and investment with shared and growing concerns related to economic security, supply chains and the challenges to the rules-based economic order.

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WEDNESDAY 21 AUGUST

Local Time	Adelaide Time	Canberra Time
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1600-1630	PsiQuantum Chicago Future Site Visit	0630-0700 ⁺¹	0700-0730 ⁺¹
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Venue: Future PsiQuantum site, E 87th St & S DuSable
Lake Shore Dr, Chiacgo, IL 60617

Attendees:

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Local Time

Adelaide Time

Canberra
Time

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s 22(1)(a)(ii) – this section, together with the following pages (15-30) are irrelevant and have been removed.

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PSIQUANTUM CHICAGO FUTURE SITE VISIT

KEY MESSAGES

What we want:

- Reaffirm the close relationship between Australia and the US on critical technologies, including quantum.
- Seek an update on the Illinois State Government's recent investment in a 'Quantum Proving Ground', where PsiQuantum will be an anchor tenant.

Time and Place Wednesday 21 August, 4:00pm-4:30pm E 87 th St & S DuSable Lake Shore Dr, Chicago	Key attendees <ul style="list-style-type: none"> • [TBC]
Minister's role, objectives, context and sensitivities <p>In April 2024, the Australian Government announced an AUD \$466.4 million financing package of equity and loans through Export Finance Australia, with matched investment from the Queensland Government, to support PsiQuantum's objective of delivering the world's first utility-scale Fault Tolerant Quantum Computer (FTQC) by 2029.</p> <p>This meeting is an opportunity to underscore Australia's keen interest in ongoing Australia-US collaboration on quantum research and development. It is also an opportunity to seek an update on the State of Illinois' decision to establish and fund a quantum computing research park called the 'Quantum Proving Ground', where PsiQuantum will be an anchor tenant.</p>	
Handling note – You will undertake a site visit of PsiQuantum's Illinois development location, a former steelworks plant that will be remediated and repurposed (ground has not been broken yet). Chicago Consul-General Chris Elstoft visited the site in the week before your visit.	

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Talking points:

- Pleasure to meet today to discuss Australia and the United States' shared interests in critical technologies and our goal of leading the quantum revolution.
- Australia recognises that quantum computing will be transformational, exponentially increasing our ability to solve problems and powering breakthroughs across medical science, advanced manufacturing, and climate change.
- Australia is focused on building our quantum strengths through the National Quantum Strategy
 - this includes working as a trusted partner with international governments and industry leaders.
- In April 2024, we announced a A\$466.4 million financing package of equity and loans through Export Finance Australia, with matched investment from the Queensland Government, to support PsiQuantum deliver the world's first utility-scale Fault Tolerant Quantum Computer (FTQC)
 - pleased to see the importance of this investment reflected in the AUSMIN Joint Statement.
- Australia welcomes the recent announcement of investment by the State of Illinois to develop a Quantum Proving Ground, with PsiQuantum as the anchor tenant.
- Our respective investments in PsiQuantum provides an opportunity for practical cooperation between Australia and the US, helping us deliver on joint commitments to:
 - combine our leadership and research excellence in quantum
 - grow and build a trusted global quantum marketplace and associated supply and value chains; and,
 - advance our shared vision of a vibrant, secure, trusted and interconnected quantum ecosystem.
- Welcome updates on the establishment of the Quantum Proving Ground and on progress towards delivering the world's first utility-scale FTQC.
- Interested in how Chicago and Brisbane can maximise opportunities for closer cooperation based on the investments in PsiQuantum.

Background

PsiQuantum is a leading global quantum computing company based in the United States' Silicon Valley. The company's mission is to build the world's first utility-scale Fault Tolerant Quantum Computer (FTQC). PsiQuantum's advantage lies in its photonics-based approach, which allows it to leverage existing technology – including high-volume semiconductor manufacturing, packaging, and high-power cryogenic systems – to create a fast and feasible path to large-scale fault-tolerant systems.

Two of PsiQuantum's four co-founders, Professor Jeremy O'Brien and Dr Terry Rudolph, are Australian. CEO Jeremy O'Brien developed much of PsiQuantum's early approach to photonic-quantum computing while researching at the University of Queensland.

The Illinois Government is not directly funding PsiQuantum – they are offering an incentives package to PsiQuantum (e.g. tax incentives) to locate future development there. The State of Illinois FY25 budget has allocated US\$500 million towards campus build and research development. The US Defence Advanced Research Projects Agency (DARPA) will contribute USD \$140 million in matching funds to the campus. The site will have shared cryogenic facilities, equipment labs and space for companies and universities.

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PSIQUANTUM

- Recognise the **transformational potential of quantum computing**, including for medical science, advanced manufacturing and climate.
- **National Quantum Strategy** positions Australia as a trusted partner with likeminded governments and industry leaders.
- Welcome recent announcement of Illinois to develop a **Quantum Providing Ground** with PsiQuantum.
- It is clear we see the **opportunities for practical cooperation** – including quantum research, growing and building supply and value chains, and an interconnected quantum ecosystem.
- Following these investments with PsiQuantum, welcome views on how Chicago and Brisbane can **maximise opportunities for closer cooperation**.