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*Ingenuity for life*

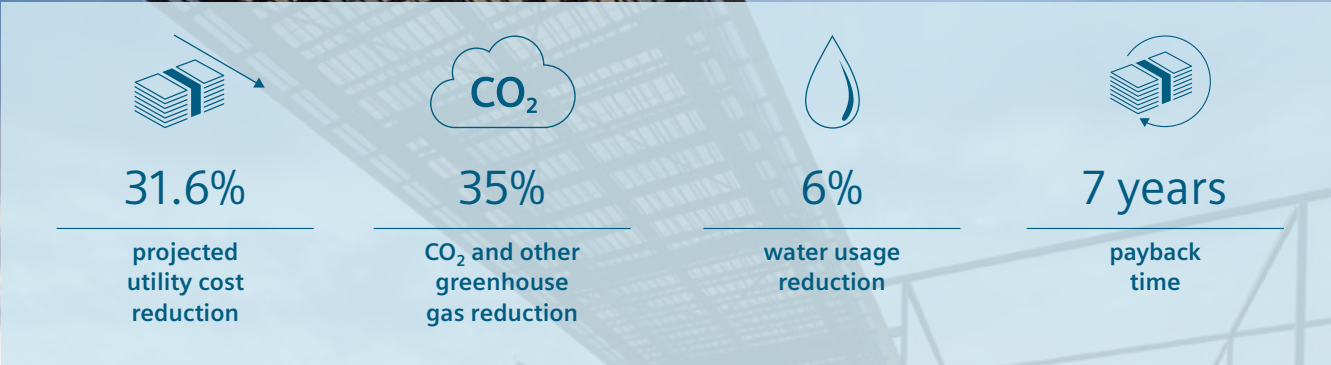
## Creating perfect places to explore

Improved building performance  
for Museums Victoria, Australia



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# Significant emissions and cost savings through Energy Performance Contracting



Museums Victoria is the largest public museum organization to adopt the Victorian Government’s Greener Government Building program (GGB). It spans six sites: Melbourne Museum, Immigration Museum, Scienceworks Museum, Royal Exhibition Building, Moreland Annexe and the Simcock Avenue storage facilities, each with a unique set of efficiency optimization requirements.

Building efficiency optimization measures, combined with financing through Energy Performance Contracting, enable Museums Victoria to reduce its energy and maintenance costs as well as its CO<sub>2</sub> footprint, with a payback period of under seven years.

Siemens was chosen to undertake a detailed facility study of the museum’s entire real estate pool. The goal was to significantly reduce operating costs and emissions by implementing energy and water efficiency retrofits in government-owned buildings.

Siemens’ improvement proposal offered the best outcomes for the customer in terms of maximizing project value and energy savings within the required seven-year simple payback period. HVAC, lighting

and water efficiency improvement measures are being implemented over 15 months and financed with Energy Performance Contracting.

The projected 31.6 percent utility cost reduction will exceed the initial 20 percent target, water usage is down by 6 percent and emissions have been cut by 35 percent. Crucially, the upgrades will also reduce maintenance costs to achieve the payback target.

*“Museums are about learning from the past to preserve the future. We are proud that by working with Siemens we are now contributing to a sustainable future for future generations.”*

Dr. Patrick Greene, CEO Museums Victoria

## A milestone in energy efficiency



The Energy Performance Contracting for Museums Victoria marks another important success in the Victorian Government’s Greener Government Buildings (GGB) program. Since 2009, the program has invested \$134 million to upgrade 389 government buildings. A large investment that is expected to yield significant results, with estimated cost savings of \$335 million and an annual greenhouse gas reduction of 134,000 tons.

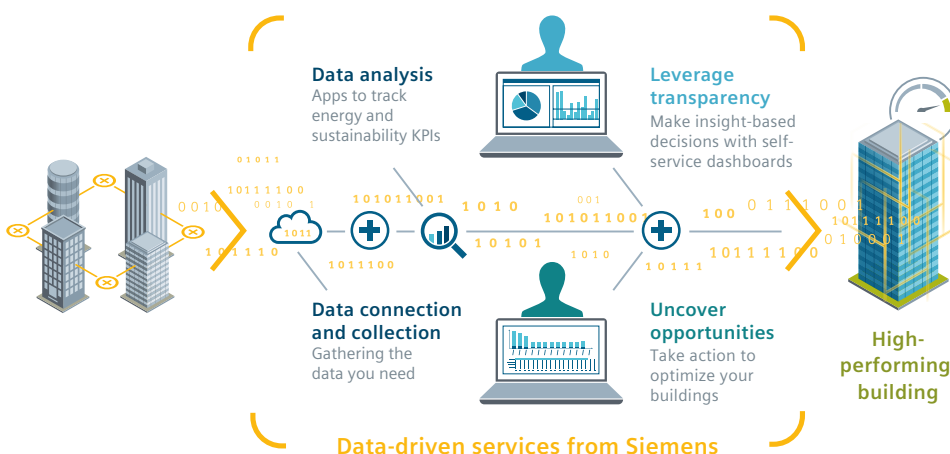
## A perfect place to explore – behind the scenes

The detailed facility study conducted by Siemens improved on the expected overall cost and payback time. This was achieved by selectively descopeing solutions that had poor financial payback, leading to the following efficiency improvements:

- New Desigo CCTM building management platform at Melbourne Museum
- Demand FlowTM chilled water system optimization at Melbourne Museum
- Lighting upgrades across all six sites
- Chiller replacement at the Immigration Museum
- HVAC control optimization strategies, including variable speed drives (VSDs)
- Water efficiency upgrades across all sites
- Cogeneration system: subject to approval
- Implementation of Navigator – the cloud-based energy and sustainability platform, that monitors all buildings

## Navigator – the cloud-based energy and sustainability platform

Turning data into results across your entire building portfolio



When building technology creates perfect places – that's Ingenuity for life.

Never too cold. Never too warm.  
Always safe. Always secure.

With our knowledge and technology, our products, our solutions and our services, we turn places into perfect places.

We create perfect places for their users' needs – for every stage of life.

**#CreatingPerfectPlaces**  
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