

**SOLUTION:**  
Data

**INDUSTRY:**  
Energy

**COUNTRY:**  
Australia

## A NEW WAVE OF RENEWABLE ENERGY

“The amount of energy landing on our shores is about five times what we consume. And it’s really untapped.”

– **JONATHAN FIEVEZ**, CEO, CARNEGIE CLEAN ENERGY



Carnegie Clean Energy is researching cost-effective ways to create energy from untapped, renewable sources. Using supercomputers to study the rhythms of nature could unlock unlimited supplies of clean energy. Carnegie teams up with the Pawsey Supercomputing Centre in Kensington, Western Australia for access to the HPE Cray Magnus—a petascale supercomputer.

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## OBJECTIVES

- Tap unused natural resources to produce renewable energy
- Study wave action to unlock its nearly limitless potential for energy creation
- Create floating structures to harness wave energy

## REQUIREMENTS

- Test the buoy structures virtually before deploying in the ocean
- Analyze the physics of how the ocean and the buoys interact
- Fine-tune and scale the solution to convert that motion into electricity

## SOLUTION

- HPE's Cray XC40 high-performance computing system



## OUTCOMES

- Provides emissions-free sustainable and scalable energy
- Produces grid-ready electricity with zero visible impact
- Creates the ability to produce 5X the amount energy our planet needs

## ADDITIONAL RESOURCES

- [VIDEO](#)