C·POWER®

NATIONAL ACADEMIES *Sciences Engineering Medicine*

Committee Meeting #5
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Joe Prudell
jprudell@cpower.co
+1 541 224-8446

www.cpower.co

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Agenda

- Company Background
- Technology Overview
- Upcoming SeaRAY AOPS Demonstration
  - PacWave Deployment
  - Technology Qualification

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C-Power Background

C-Power provides offshore power and communications solutions

- Offices in Charlottesville, VA and Corvallis, OR
- Decade of engineering, modeling and testing and sea trials alongside
- Purpose-built, dual-use technology
- >$30 million of U.S. Department of Energy and Department of Defense funded product development
- DNV-led technology qualification
- 50+ patents granted to date

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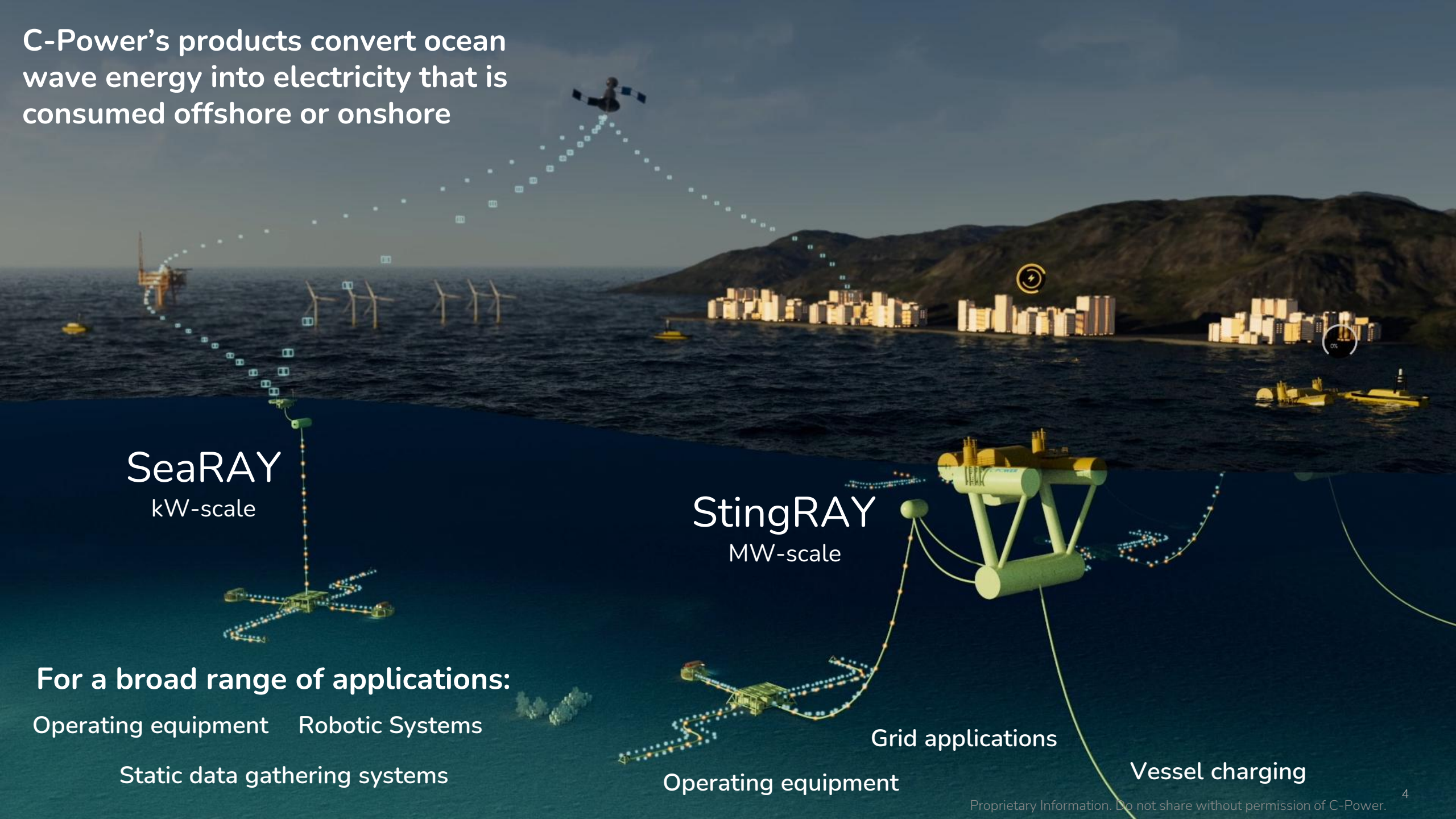
C-Power's products convert ocean wave energy into electricity that is consumed offshore or onshore



SeaRAY
kW-scale

StingRAY
MW-scale

For a broad range of applications:

Operating equipment

Robotic Systems

Static data gathering systems

Operating equipment

Grid applications

Vessel charging

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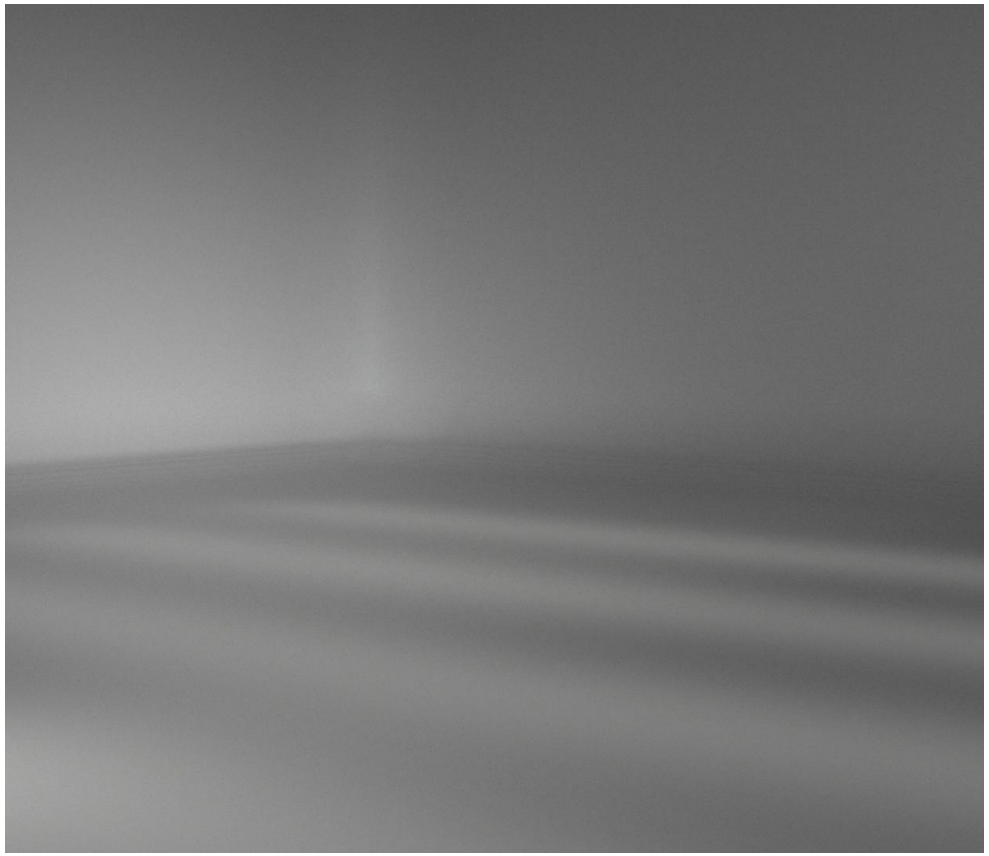
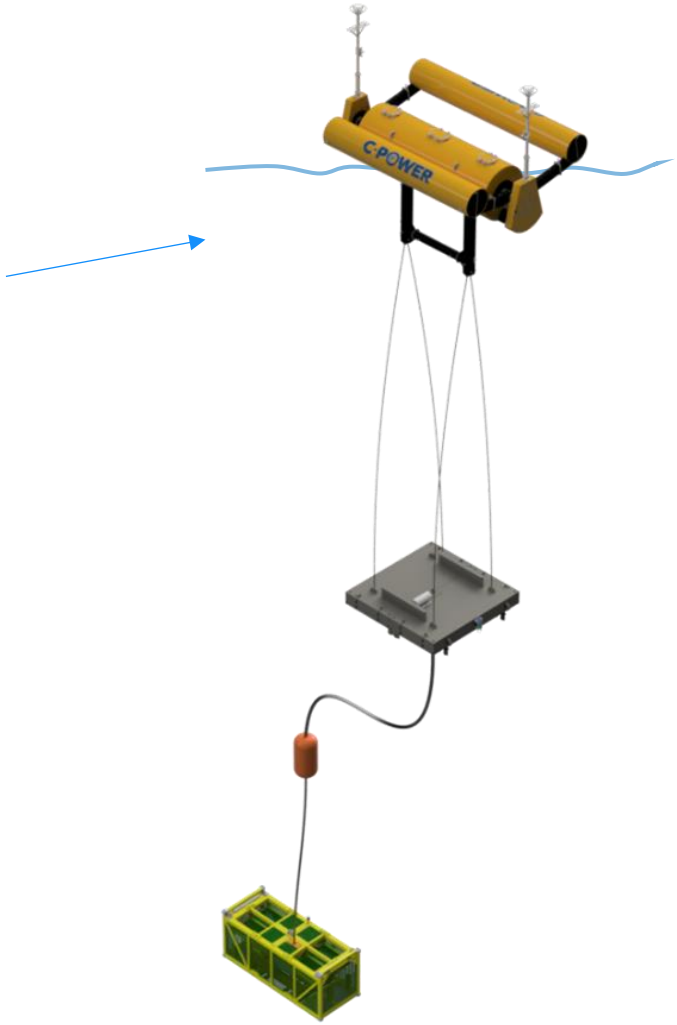
SeaRAY Autonomous Offshore Power System (AOPS)





SeaRAY™
Power generation and communications

Single Point Mooring
Combined mooring, power & data transfer system

Seafloor Base Unit
Combined gravity anchor, energy storage, power & data distribution

*Not to scale

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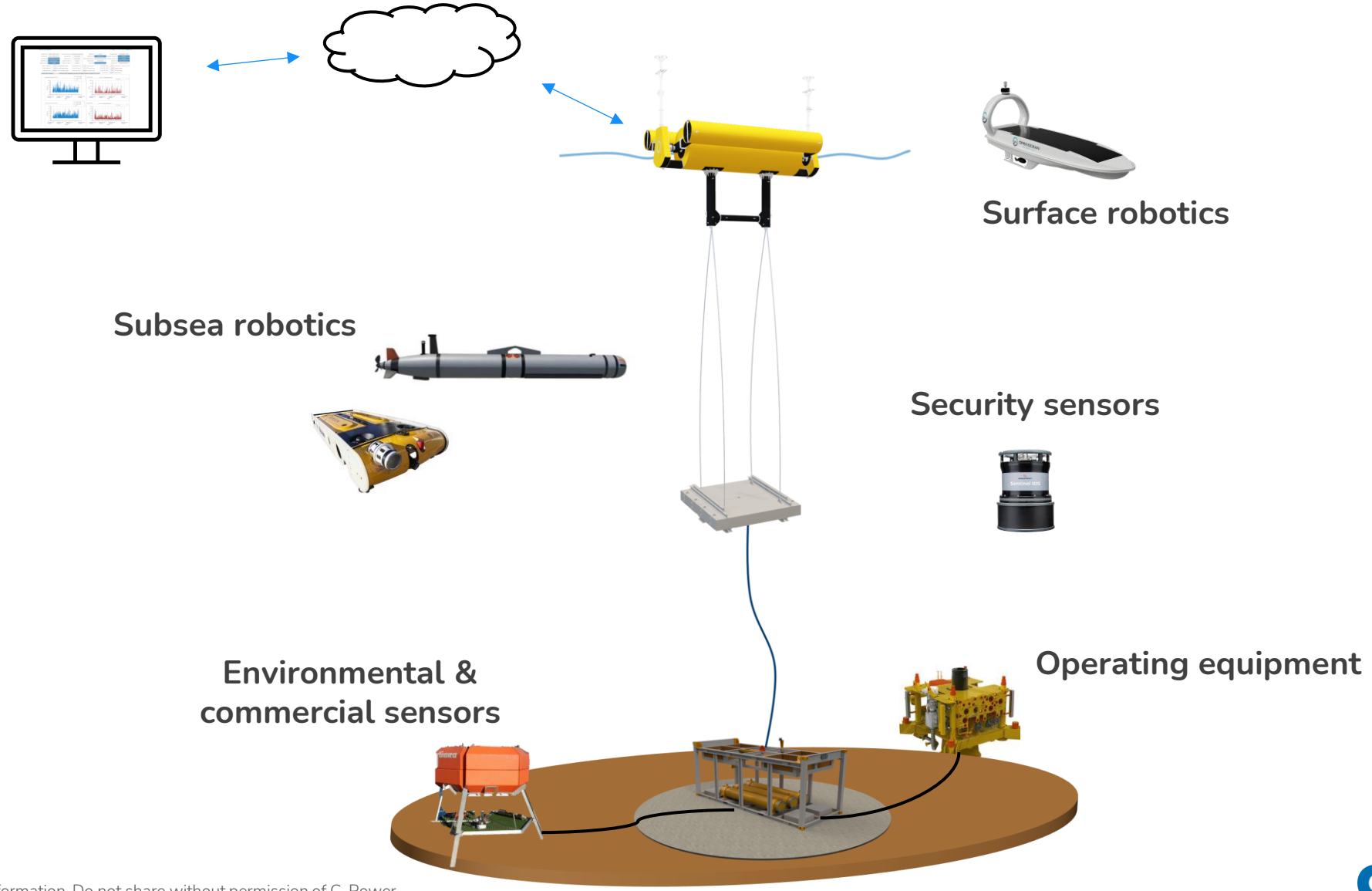
Broad range of applications and use cases



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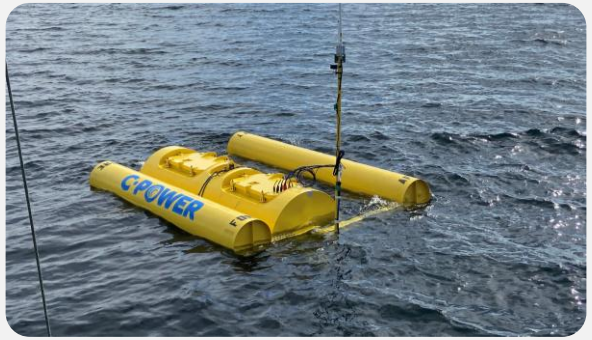
* Not to scale, all component details not shown

In-water pilots

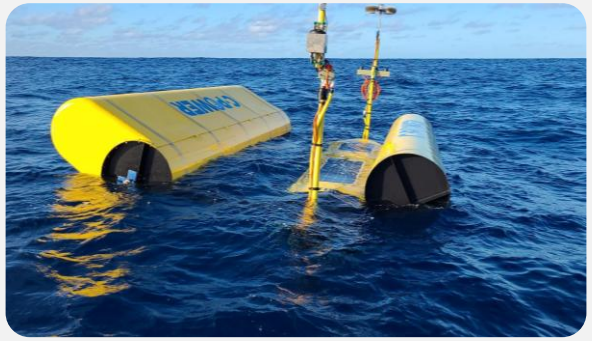
DARPA TUNA program
prototype – 2017



TigerRAY (Drifting configuration)
1st deployment, US Navy – 2022

TigerRAY 2nd deployment
US Navy – 2023

TigerRAY 3rd deployment
US Navy – 2024



Oahu-class SeaRAY AOPS Phase 1
2023 Commercial Pilot

Phase 2
RIMPAC/Trident Warrior 2024

Oregon-Class SeaRAY AOPS
2026 Commercial Pilot

plus tens of thousands of hours of modeling and dry testing

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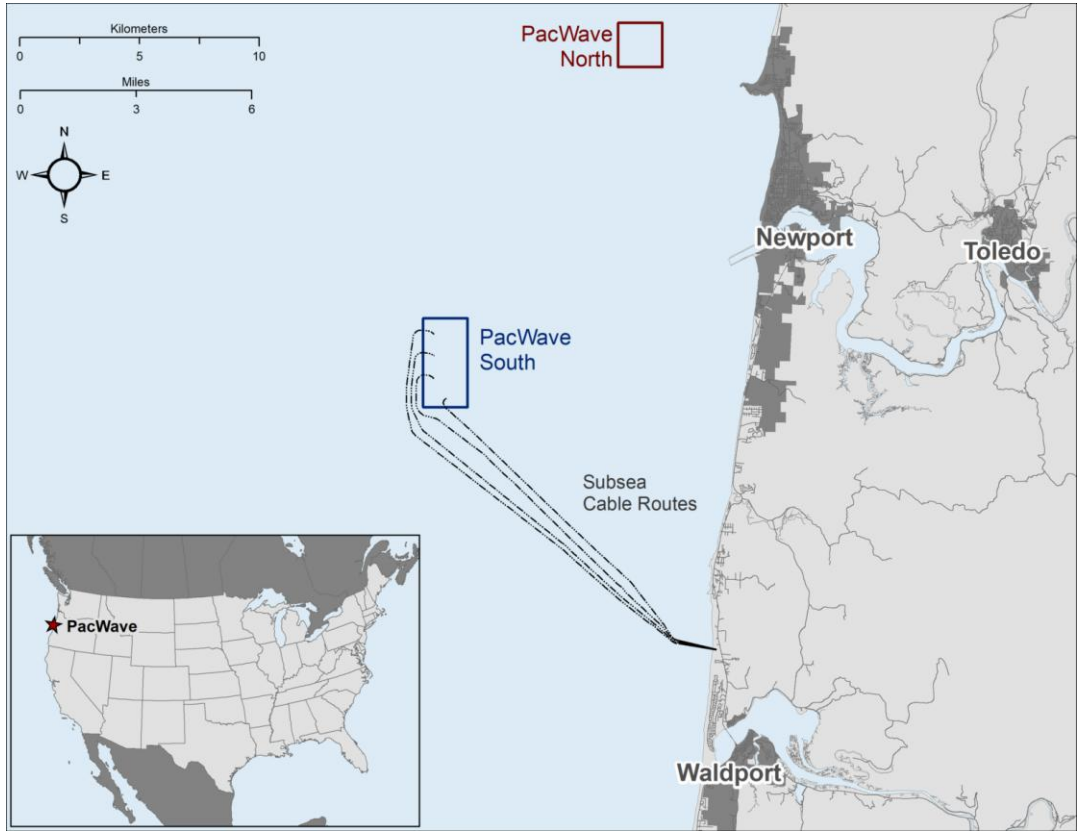
Oregon Demonstration Overview

- 18-month deployment at PacWave
- New capabilities benefit all targeted commercial sectors
  - DNV technology qualification
  - Higher power and more efficient
  - Hardened system design
  - Improved communications
  - Improved IO&M
  - Broader asset support capabilities



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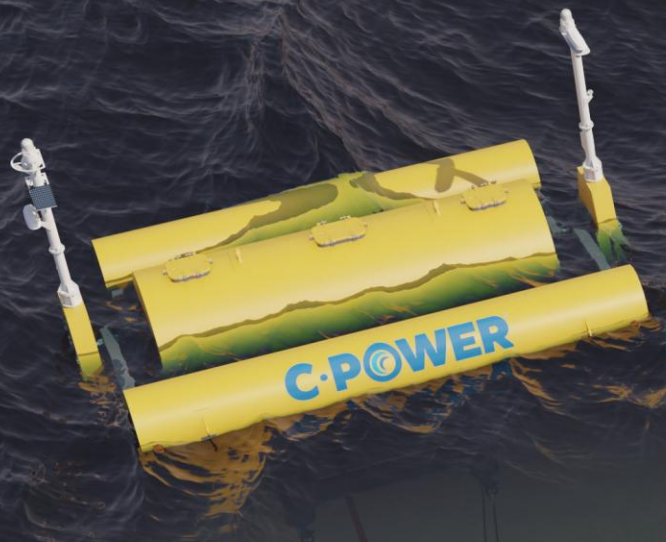
SeaRAY™

Autonomous Offshore Power System (AOPS)

Subsea Integration Alliance

SIA



SeaRAY AOPS

SIA Payload c/w subsea pumps, electric actuator and acoustic modem

Single Point Mooring

Seafloor Base Unit c/w subsea battery and power management system

slb One Subsea | subsea 7

Application of Design Standards

- Primary design guidance taken from IEC TC114 Marine Energy Converters, including
  - 62600-2 Marine Energy Systems: Design Requirements
  - 62600-10 Assessment of Mooring System for Marine Energy Converters
- Supplementary guidance taken from relevant DNV/IEC/ISO standards, including
  - DNV-OS-C101 Structural Design of Offshore Units
  - DNV-RP-C201 / C202 Buckling Strength of Plates / Shells
  - DNV-RP-C203 Fatigue Design of Offshore Steel Structures
  - DNV-RP-B401 Cathodic Protection Design
  - DNV-OS-E301 Position Mooring
  - DNV-ST-0076 Design of Electrical Installations for Wind Turbines
- Standards used, and deviations, being documented within Technology Qualification process
- Additional guidance from subsea-specific standards (e.g., API 17F) at interfaces with external assets

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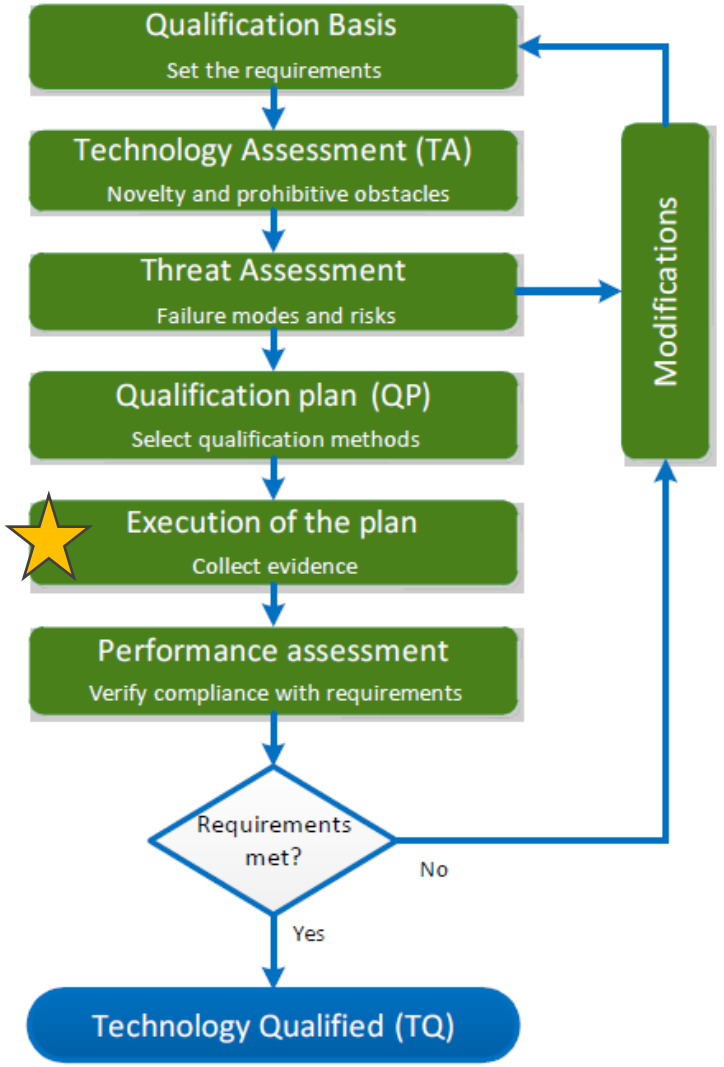
Technology Qualification (TQ)

- 3rd Party TQ by DNV Renewables Certification
  - DNV-SE-0160 Technology Qualification Management and Verification
  - DNV-RP-A203 Qualification of New Technology
- Statement of Feasibility issued Dec 2024



Source: Technology Qualification Process (DNV-RP-A203)

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Thank you.

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