Where do you get your power?
Integrated Shore Power Systems
It’s not getting any easier to power a big ship in port. Owners and operators are increasingly challenged to meet ever-stricter emissions standards. Pressure on shipping lines, cruise operators and port owners has never been greater to provide a clean, quiet, well-resourced berth.

The answer is shore power. Vessels using shore power systems in port can reduce air pollution by 95% over those using diesel engines. Shore power provides a better environment for crews and harbor workers, and the people, plants and animals making their homes around the port. It’s the only realistic, future-proof way to meet local, national, and international regulations.

And the clear leader in shore power is Cochran Marine.
Cochran Marine is the world’s leading provider of shore power solutions, with a patented technology for electrically powering vessels in port. We provide a solution that automates the distribution of electrical power to berthed ships and tracks the data from all connections through an actionable, web-based system. This supports more reliable and efficient shore power for cruise lines, cargo ships, and naval vessels.

We’re part of Cochran, Inc., a $200 million electrical and technology services firm. Headquartered in Seattle since 1954, our electrical and technology groups serve Fortune 50 customers worldwide.

Our systems are built by IEM Marine, a division of IEM, the largest independent full-line manufacturer of low and medium voltage power hardware in the USA. IEM Marine maintains an 85,000sf ISO-approved facility in Jacksonville, Florida, where line-ups are built to precise specifications using strong sub-frames for rapid distribution, installation, and commissioning. An extensively equipped power facility allows complete testing of all components and systems before they’re shipped, so we can bring them online in days, not weeks. Our marine systems are designed for robust use and the tough oceanside environment, with quality components from the world’s leading suppliers.
A SYSTEM, NOT A PRODUCT

Working closely with IEM Marine, we’ve developed a proven, standardized line-up that has shown itself to be cost-effective, reliable and easily operable. It’s the basis of an end-to-end system that offers unique advantages:

- Direct control over planning, contracting, design, manufacture, installation, commissioning, connection management and reporting.
- Rapid commissioning: in days instead of weeks.
- Trouble-free connections fully managed by Cochran technicians and operations specialists from our remote monitoring center.
- A future-proof, upgradable modular design with a compact, space-saving footprint, easy to adapt to individual specifications.
- Compliance with all relevant standards, including those for ISO/IEC/IEEE 80005: HVSC systems.
- Regular updates with the latest technology.
- Automated emissions savings reports tailored to local and national regulatory requirements.

For over 10 years, Cochran Marine has delivered and managed shore power installations in ports across North America, including Vancouver, Seattle, San Francisco, San Diego, Long Beach, Brooklyn and Halifax, Nova Scotia. We provide over 500 successful connections every season. And in partnership with IEM Marine, we bring a fully integrated system to ports and shipowners, one that’s reduced emissions for our clients by thousands of tons.
Our single-source solution covers every step of the shore power process, from the fine points of regulatory advising through design and build, heavy equipment installation and system operation and maintenance.

Consulting

We provide consulting services to ports and to cruise and freight lines, including feasibility analyses, emissions reductions estimates, funding availability reports and negotiations with stakeholders.

Specifying & Permitting

We coordinate with utilities and develop specifications based on our own standard proprietary designs, cutting engineering costs to a minimum.

Manufacture & Testing

We build our line-ups to your specifications, utilizing strong sub-frames that minimize the number of shipping splits and reduce installation times. IEM Marine carries out comprehensive factory testing before the system is shipped.

1 2 3
While the site is readied, the system is shipped to the port in just a few pre-assembled sections, so it can be installed, commissioned and functioning in days instead of weeks.

We manage the connection process. Once the ship is docked, we quickly connect the shore power cables, either via a specially retrofitted container on deck or directly to the ship’s power systems, so that the auxiliary diesels can be taken offline.

Our custom software allows the specialists in our dedicated control center in Seattle to oversee every connection. An engineer will configure power for an incoming ship and provide real-time troubleshooting during the connection process. The system reports a range of metrics, including timing of each stay, energy consumed and emissions reductions across all main pollutants.
A
The primary section contains metering and the main isolating breaker. AC supply is converted to DC and stored for an uninterrupted supply to the control systems.

B
The transformer steps down the high voltage feed. In 50Hz systems, the frequency management section converts to 60Hz power when required.

C
Our patented system includes multiple breakers and safety procedures to safeguard the ship’s crew and assets.

D
The automation control system verifies readiness and determines the correct operating parameters for the incoming vessel. One Cochran Marine electrician manages the entire process on site.

We coordinate with the local utility throughout installation and commissioning.
We help your crew position the vessel, then physically connect it to the line-up, either via a specially retrofitted container on deck or directly to the vessel.

At the dockside control cabinet, we await a go-ahead from the ship's chief electrical engineer before racking in the breaker and sending power to the ship.

We oversee connections from our dedicated control center in Seattle, providing on-demand connection and emissions reduction reports.

The system is designed, manufactured and tested by IEM Marine, assuring the highest levels of performance and reliability.
Cochran Marine’s patented, highly automated system is the basis of our unique end-to-end solution for ports and ships that are committed to reducing emissions.

Our partnership with IEM Marine offers:

- A unique system design for safer, more efficient, and more reliable operation than any other shore power system.

- The experience gained through more installations and connections than any other provider.

- Equipment constructed in an advanced production facility, with comprehensive component and system testing prior to installation and commissioning, reducing lead time and risk.

- Proven technology, already integrated into 30 different vessels from some of the world’s leading shipowners since 2005 and trusted with over $20 billion of ship assets.

- Full end-to-end service that will meet your requirements long into the future.

The Cochran Marine shore power system assures compliance with ever-tightening regulations, decreases fuel consumption, and contributes to a cleaner port environment.
Contact us today, and let us show you all you can gain from an integrated shore power solution by Cochran Marine.

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