



# The quiet revolution beneath the waves: why offshore wind needs a new kind of partnership

**Words:** Sofia Zamani, CEO and Abdul Khail, President, Enernovo

When most people think of offshore wind, they picture rows of turbines turning in the sea, elegant silhouettes on the horizon. What they don't see is everything that makes those turbines possible. The concrete, the steel, the shipping, the people. It's a world beneath the surface, quiet and complex and it's here where the true test of our industry lies.

### Solutions we're building together

Enernovo is implementing a series of practical initiatives designed to move the needle across the entire offshore wind supply chain.

We are to soon launch an AI supplier scoring tool that evaluates vendors not just on cost and delivery, but on sustainability metrics like carbon intensity, labor standards and material traceability. This gives our procurement teams a real-time window into environmental and social impact and empowers them to choose more responsibly.

We're also piloting mobile fabrication units that can be deployed near coastal staging sites. These units reduce transport emissions and create jobs right where the work happens, giving local talent a pathway into the clean energy economy.

Another area we're investing in is sustainable procurement practices that prioritize better material flow directly to offshore wind infrastructure sites. We're working to streamline access to responsibly sourced, high-performance materials, such as low-emission concrete, corrosion-resistant alloys and biobased composites, that not only improve the longevity of assets but also reduce overall environmental impact. By creating centralized hubs near project sites and establishing vetted supplier networks, we help reduce delays, cut emissions from long-distance transport and ensure that what arrives at the dock supports the integrity of our climate goals.

We're also advancing the use of AI-powered supply chain analysis tools to help map carbon hotspots across the entire lifecycle of offshore wind components. These tools can identify inefficiencies, track emissions in real time, and recommend lower-impact alternatives which makes it easier for procurement teams to choose smarter, greener options.

In parallel, we're exploring partnerships to integrate carbon capture technologies into select manufacturing and fabrication processes, helping reduce net emissions at the source. These innovations move us from passive measurement to active impact reduction.

These are not just Enernovo projects. These are ideas that can be replicated across the industry. We want others to take them, adapt them, and build on them. Because the only way we win is if we all rise together.

### Start with the right questions

None of this is easy. It takes work. But it starts with something simple: asking better questions.

Can we source this closer to home? Is there a supplier we're overlooking who deserves a shot? What's the true carbon impact of this material and not just its sticker price?

Offshore wind is often called clean energy. But if we're being honest with ourselves, not every part of it is as clean as we'd like. The materials we use, the distances we ship, the processes we rely on; they come with costs that aren't always easy to see. Costs to the environment, to communities, to workers.

This isn't meant to be criticism. It's meant to be an invitation. An invitation to do better.

### The power of choosing differently

At Enernovo, we believe that how we build matters just as much as what we build. Every time we order a part or sign a contract, we're making a choice. That choice can support a more just, more sustainable world, or not.

Who made this material? Were they paid fairly? Did it come from a responsible producer? Could we have sourced it locally instead of halfway around the globe? These are questions we try to ask every day.

'We can't build a clean future on a dirty foundation,' says Sofia Zamani, CEO. 'Every decision we make is an opportunity to support something better. It's up to us to take that seriously.'

### What a better supply chain looks like

Picture this. A port humming with local workers, assembling components made just a few hours away. Steel that's been processed in low-carbon plants. Concrete that's engineered to protect marine life. Trucks and vessels running on clean fuel. And at the heart of it, suppliers who know their work matters, not just to the project, but to the planet.

This isn't a dream. It's already happening in small ways across the country. But it takes intention. It takes a willingness to look beyond price tags and timelines and ask what kind of world we're helping to create.

We've been the women- and minority-owned business brought in as the central partner on key offshore wind projects, trusted to lead, not just support. The result was faster timelines, stronger collaboration and a deeper sense of shared ownership and pride that elevated the entire effort.

'Sustainable sourcing isn't about being perfect,' says Abdul Khail, President. 'It's about making better choices, one step at a time. And bringing others along with you.'



## When suppliers can forecast their resource and workforce needs with certainty, they're more likely to invest in cleaner technology and greener processes.



These aren't just technical questions. They're human ones. They remind us that every turbine we raise is built on thousands of decisions. Each one a chance to do right by the environment and by the people who make this industry possible.

### Remembering the people

Because in the end, it's all about people. The welder in upstate New York who's proud of his work. The small business owner in New Jersey who finally got a seat at the table. The crew loading parts at dawn in the freezing rain. These are not invisible hands. They are the heartbeat of offshore wind.

We owe them more than contracts. We owe them respect, partnership and the chance to be part of something bigger.

### Raising the bar: what more can we do?

The work doesn't stop with smart tools and strategic sourcing. To create lasting, systemic

change, we must rethink the structure of the supply chain itself. Imagine a unified offshore wind sustainability registry, an open-access platform where every material, vendor and project partner is logged with verified sustainability credentials. Such a system would increase transparency, reward ethical practices and accelerate the adoption of greener alternatives across the industry.

We also believe in the power of prequalification. Instead of waiting until contracts are awarded, we propose a sustainability-first registry that certifies vendors and service providers based on emissions profiles, equity hiring practices, material lifecycle standards and regional value. This would enable project teams to build supplier rosters with confidence and speed.

Additionally, there is immense potential in shared logistics hubs that support multiple offshore projects simultaneously.

By co-locating materials, staging equipment and workforce housing at centralized ports, we can reduce transportation costs, compress delivery windows and decrease overall emissions. Collaboration here is key. No single company can optimize the system alone.

We're also advocating for long-term procurement planning that gives suppliers a clear line of sight into future demand. When suppliers can forecast their resource and workforce needs with certainty, they're more likely to invest in cleaner technology and greener processes. It's about creating stability so that sustainability can thrive.

This is a call for vision. For coordination. For creativity. The climate crisis demands urgency, but that urgency should not lead us to cut corners. It should push us to design better, source better, and build with purpose.

### What we leave behind

Offshore wind is about the future. But it's also about how we get there. If we only focus on megawatts and deadlines, we miss the deeper point.

Let's think about the impact we're leaving behind. The carbon we avoid. The jobs we create. The communities we strengthen. The dignity we restore to forgotten corners of the supply chain.

Let's choose a path that reflects who we are and who we want to be. A path that puts people, planet and purpose at the center of every decision.

Because years from now, when we look back, we want to say: we didn't just build wind farms. We built something we believed in. And we built it together.

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### About the authors

Sofia Zamani is the CEO of a US-based, renewable infrastructure MWBE, that champions sustainable construction and local content in the offshore wind supply chain.

Abdul Khail is a recognized leader in advancing equitable sourcing, supply chain innovation, and carbon-conscious procurement for clean energy infrastructure.