

A black and white portrait of Sophy M. Laughing, a woman with long, wavy hair, smiling warmly at the camera. The portrait is the background for the entire page.

Steward

SOPHY M. LAUGHING, PH.D. MBA

**Advancing Executive
Diversity and Modern
Corporate Governance**

PROTECTED OVER \$10B
IN CULTURAL ASSETS

2017 RECIPIENT OF THE
STATE OF MEXICO'S
HUMANITARIAN AID AWARD

**SENIOR EXECUTIVE
CAREER PROFILE**

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THE COBEAL GROUP

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CEO & BOARD MEMBER

THE COBEAL GROUP

(JUNE 2023 - APRIL 2025) LATAM, ASIA

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DIRECTOR INTNL. SALES & MARKETING

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CERTIFICATES

POLITICAL SCIENCE

HILLSDALE COLLEGE, HARVARD UNIVERSITY

DOCTOR OF PHILOSOPHY

APPLIED AND PROFESSIONAL ETHICS

NATIONAL AUTONOMOUS UNIVERSITY OF MEXICO

MASTER OF BUSINESS

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NATIONAL AUTONOMOUS UNIVERSITY OF MEXICO

BACHELOR OF ARTS

POLITICAL PHILOSOPHY

IBEROAMERICANA UNIVERSITY



About Sophy Laughing

Dr. Sophy Laughing is an award-winning CEO whose career spans continents, industries, and disciplines—but always returns to one principle: protect what matters and build what lasts.

Over the years, she has led high-stakes infrastructure and renewable energy programs in some of the world's most demanding environments. Offshore, her teams delivered platforms and energy systems for Chevron, Shell, Dubai Petroleum, and Total, and Pemex—earning recognition in LNG, offshore wind, and subsea engineering. Onshore, she partnered with internationally-recognized museums and national archives to deliver Class 1 cleanrooms, achieving the cleanest environment ever created at LLNL's National Ignition Facility, where even the tiniest particle could disrupt its goal of inertial confinement fusion. This breakthrough revolutionized global clean energy expectations.

Sophy's portfolio reaches far beyond energy. She has overseen cultural preservation and infrastructure efforts across four continents, from safeguarding Mexico's constitutional archives to upgrading preservation environments for the Palace of Fine Arts, Jumex Museum, the National Archives of the Dominican Republic, and Cineteca Nacional. These weren't just capital projects—they were acts of stewardship.

When the 2017 earthquake struck Mexico, Sophy led Cobeal's humanitarian response. Within days, her team had deployed field hospitals, backup power, and emergency housing for more than 10,000 residents in Amecameca and Ozumba. This was more than a corporate response. It was a demonstration of building a culture of empathy.

Behind it all: decades of trust. Sophy's secured major funding from international monetary institutions, philanthropic foundations, NGOs, and private-sector partners. Her efforts have protected over \$10 billion in cultural assets and logged more than 1.5 million incident-free man-hours. The teams Sophy led set new standards for safety, compliance, and project delivery in environments where the stakes are high and failure isn't an option.

A lifelong commitment to protecting people, places, and the environment...



I grew up on a farm in the Central Valley of California. We learned about infrastructure at an early age. Water lines had to be checked, trees needed pruning, and irrigation systems had to work non-stop. That environment taught me to respect the systems that support life. It also taught me that protecting people often begins with protecting the conditions they depend on.

That mindset has shaped my entire career. I have led infrastructure programs across borders and sectors, from offshore energy platforms to national preservation vaults. I have worked in seismic zones, post-disaster regions, and ecologically sensitive terrain. Each project brought technical complexity, but the principle beyond them remained clear. Protect the systems that protect people, and build them to last.

Over time, that principle expanded. My focus moved from individual outcomes to broader environmental resilience. That meant designing infrastructure around ecological realities, not assumptions. In geothermal corridors, we accounted for corrosive gas and high moisture. In cultural sites, we balanced preservation with modern energy needs. In coastal zones, we integrated climate risk into long-term system planning.

This work has taken me from California to Mexico, Singapore, Brunei, and beyond. It has included cleanroom facilities, dehumidification systems, archival climate control, power generation, and emergency response. I have overseen efforts that have protected over ten billion dollars in cultural assets and maintained over one and a half million incident-free work hours. These outcomes were made possible through deliberate planning, field coordination, and sustained partnerships across agencies and institutions.

Returning to California



California, in particular, continues to call for the same type of commitment. The climate has shifted. Fire seasons have extended. Water systems are strained. Communities once protected by proximity to natural resources now face a different reality. And yet the work remains the same. Design for durability. Lead with clarity. Plan for generations. Environmental protection is not abstract. It is a system of decisions. It lives in the placement of infrastructure, in zoning choices, in funding mechanisms, and in the policies we enforce. Resilience is not something we wait for. It's something we build, measure, and maintain over time. This is the work I have chosen. To protect what allows people, places, and ecosystems to thrive. Not through headlines or declarations, but through the steady architecture of care. That commitment has guided every project I have led, and it continues to shape the path ahead.



LAWRENCE LIVERMORE NATIONAL LABORATORY (LLNL) NATIONAL IGNITION FACILITY (NIF) PROJECT

At 30, I had the privilege of leading a multidisciplinary team tasked with one of the most technically demanding cleanroom projects ever attempted: the Class 1 environment for the NIF at LLNL.

The project's mission was to achieve inertial confinement fusion. With 192 laser beamlines and over 7,000 optical components, even the smallest particle could disrupt performance. The margin for error was nonexistent. Traditional contamination control methods were not enough. We had to design new ones.

Our team engineered a series of innovations that changed the standards for ultra-clean environments. We introduced latex microsphere testing systems to replace conventional filter validation. We co-developed low-outgassing adhesives in collaboration with BASF and designed electropolished stainless steel vessels that eliminated microscopic crevices. We also built nitrogen control systems that achieved 99.999999 percent purity. Every element was designed to eliminate particles down to 0.1 microns, and every component had to function with absolute precision.



This project was more than a technical milestone. It demonstrated what is possible when leadership, collaboration, and scientific discipline align. It also shaped the direction of my career. I learned how to lead through complexity, how to integrate engineering with scientific intent, and how to deliver systems that exceed known standards. That experience remains one of the clearest examples of why I build. Not to meet minimum requirements, but to advance what is possible and protect the integrity of what comes next.



National Archives

The National Archives of Mexico served as a proof-of-concept for regional adaptation, demonstrating that resilient cultural infrastructure can be designed and executed in high-risk geotechnical zones without compromising archival integrity. This facility integrated seismic mitigation, flood resilience, advanced environmental controls, and energy stabilization into a single turn-key solution for long-term national asset protection.

Lessons from this project directly informed subsequent work on the Archive of the Nation in the Dominican Republic, reinforcing the importance of safeguarding public memory across jurisdictions. Beyond technical delivery, this initiative positioned Cobéal as a trusted partner in multilateral preservation, capable of aligning with government ministries, international heritage bodies, and local contractors under shared standards of care. The project also established a replicable framework for future cross-border infrastructure efforts that serve both cultural continuity and climate adaptation at scale.

STRATEGIC IMPACT

ASSET PROTECTION: ENABLED THE LONG-TERM PRESERVATION OF OVER 25 MILLION HISTORICAL RECORDS AND PHOTOGRAPHIC ARCHIVES, SECURING NATIONAL HERITAGE VALUED IN EXCESS OF \$1.2B USD.

CAPITAL EFFICIENCY: DELIVERED AS A TURN-KEY INFRASTRUCTURE PACKAGE WITH FULL EPC SCOPE, OPTIMIZING TIMELINES AND REDUCING THIRD-PARTY INTERFACE RISKS.

ENVIRONMENTAL RESILIENCE: DESIGNED AND CONSTRUCTED IN A FLOOD- AND EARTHQUAKE-PRONE ZONE, WITH SPECIALIZED SUBSTRUCTURE ENGINEERING TO MITIGATE SOIL SINKING AND SEISMIC DISPLACEMENT. THE PROJECT SERVES AS A MODEL FOR INFRASTRUCTURE DESIGN UNDER ACTIVE GEOPHYSICAL RISK.

OPERATIONAL READINESS: INTEGRATED CRITICAL SYSTEMS INCLUDING HIGH-CAPACITY TRANSFORMERS, UTILITY SUBSTATIONS, AND ADVANCED IAQ TECHNOLOGIES. FACILITY COMMISSIONED WITH FULL ENVIRONMENTAL CONTROLS, BACKUP SYSTEMS, AND SECURE ARCHIVAL ZONES.

REGULATORY COMPLIANCE AND SAFETY: ACHIEVED FULL COMPLIANCE WITH MEXICAN HEALTH, LABOR, AND ENVIRONMENTAL STANDARDS. OVER 120 WORKERS TRAINED IN HAZARD PREVENTION, PRESERVATION PROTOCOLS, AND SAFETY SYSTEMS, RESULTING IN A ZERO-INCIDENT WORKSITE.

CIRCULAR WASTE MANAGEMENT: EXECUTED A CONSTRUCTION WASTE PROGRAM ALIGNED WITH MEXICO'S NATIONAL SUSTAINABILITY GOALS, DIVERTING OVER 80% OF WASTE FROM LANDFILL AND INTEGRATING RECYCLED MATERIALS INTO NON-STRUCTURAL SYSTEMS.

Safeguarding Cultural Infrastructure at National Scale

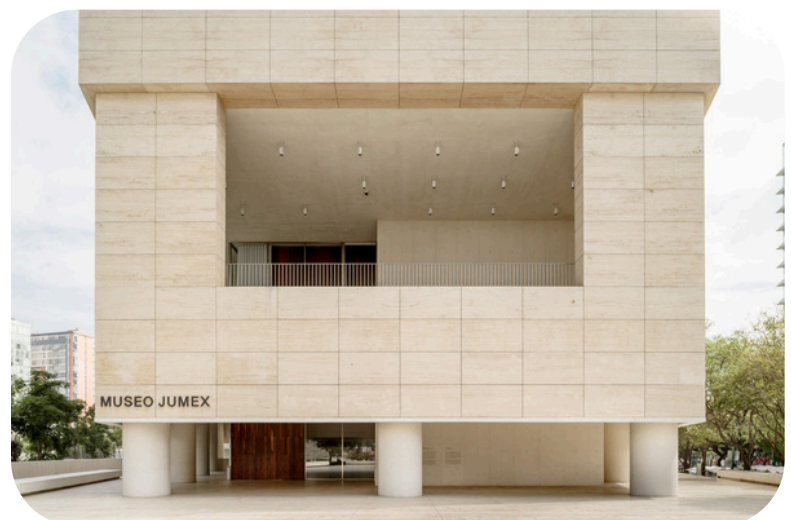
As CEO, I led the delivery of high-performance preservation systems for some of Mexico's most important cultural institutions, including Cineteca Nacional, the Palace of Fine Arts, and Museo Jumex.

At Cineteca, we designed and built six advanced environmental vaults to preserve international film heritage—integrating cleanroom-grade air handling, dehumidification, and archival-grade sealing in compliance with international conservation standards.

At the Palace of Fine Arts and Museo Jumex, we delivered turn-key façade restoration and environmental systems, including dehumidification for sensitive exhibition zones such as the Rojo Mexicano and Andy Warhol exhibits.

Each project required rigorous coordination with federal and state agencies, including INAH, and aligned with evolving standards for sustainability, worker safety, and architectural integrity.

Collectively, these efforts safeguarded over a century of cultural assets and established a replicable model for resilient cultural infrastructure throughout Latin America. This work positioned Cobeal as a trusted technical partner to museums, foundations, and government ministries committed to long-term cultural stewardship.



“Protecting global cultural heritage means building systems that outlast crisis, politics, and trends. At Cineteca Nacional and Museo Jumex, we weren’t just preserving architecture, we were preserving memory, identity, and the conditions that allow culture to breathe across generations.”

Building Infrastructure for the Arts



Our work on the Ollin Yoliztli Music Rooms and Concert Hall exemplifies how infrastructure can quietly enable the cultural life of a city. The project included architectural acoustics, climate systems, auditorium lighting, and a stormwater diversion system that helps replenish local aquifers. It was built with sustainability in mind, from the materials used to the site-specific training provided to workers, and was designed to meet both performance and preservation standards.

This approach extended to a range of related facilities, including the Facultad de Arquitectura and Facultad de Medicina at UNAM, the Instituto de Investigaciones Estéticas and Instituto de Investigaciones Históricas, the Museo Universitario Arte Contemporáneo (MUAC), the Nave Lewis Expo Building in Monterrey, and the Lanies Ecotechnology Lab in Michoacán. Each of these spaces serves a distinct public function, but all were developed with a consistent focus on integration, utility, and long-term value.

For me, cultural infrastructure is not about grand statements. It is about ensuring the systems work, the environment supports the people using the space, and the design holds up over time.

**FLOAT-OVER INSTALLATION**

Client	ONGC
Project	B193 Process Platform
Location	India
Period	2011 – 2012
WD	75 meters

**PLATFORM & PIPELINE INSTALLATION**

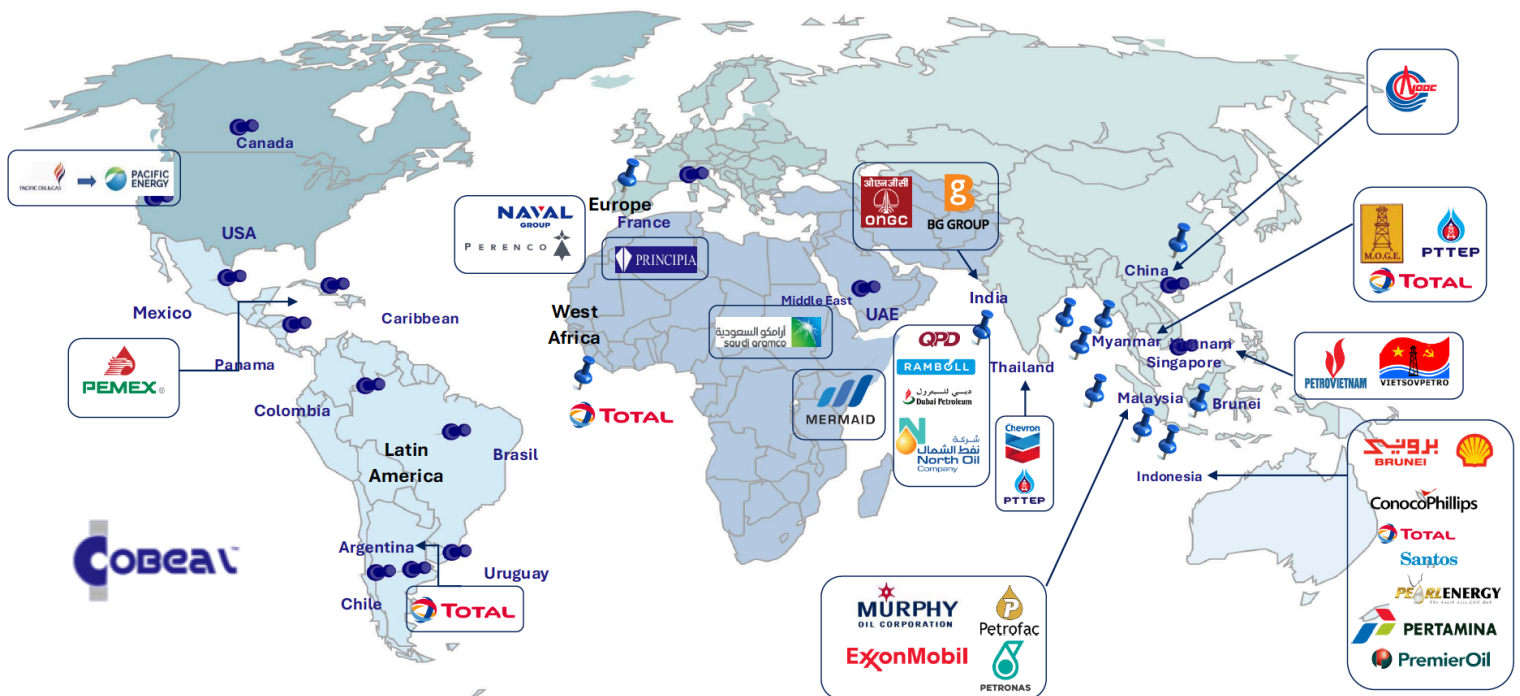
Client	Brunei Shell Petroleum
Project	Various platform & pipeline installation projects
Location	Brunei
Period	2007 – 2014
WD	40 to 60 meters

Offshore Infrastructure Through Strategic Global Partnerships

It has been my honor to lead Hollsten Enterprises and the Cobéal Group across both global partnerships and direct contracts. Our early design consulting for ONGC in India and Shell Brunei played a foundational role in establishing the trusted collaborations that later evolved into long-term offshore partnerships with Swiber and Pape Engineering. For ONGC, we supported the float-over installation of a major platform in 75 meters of water depth in the Mumbai High basin.

For Brunei Shell, our contributions to platform and pipeline installation campaigns between 2008 and 2014, in water depths of 40 to 60 meters, ensured stability and performance across complex marine conditions. These efforts required precise interface engineering, environmental adaptation, and compliance with evolving safety and performance standards.

More than technical milestones, they represent a sustained commitment to disciplined execution, regional reliability, and the kind of engineering leadership that turns initial consulting engagements into multi-year partnerships at global scale.



“We didn’t just build infrastructure: we built continuity, capability, and climate resilience across continents. Our work has safeguarded cities, powered industries, and preserved memory where others only saw engineering problems.”

The global map of Cobeal projects tells a story of infrastructure as both a technical discipline and a human commitment. From offshore energy platforms in the Arabian Gulf to seismic vaults in Latin America, our work spans some of the most demanding environments on earth. Each location represents more than a contract; it reflects a moment of trust—where government agencies, multinational firms, and cultural institutions called on our teams to deliver under pressure. Whether stabilizing a floating platform off the coast of Brunei, installing climate control systems in the National Archives of Mexico, or preserving rare international film reels at the Cineteca Nacional, we have consistently translated engineering complexity into long-term impact.

These projects matter well beyond the profit margins of the companies involved. They have enabled hospitals to stay powered during earthquakes, ensured that historical artifacts survive the next century, and helped entire regions plan for environmental uncertainty. The outcomes aren’t just technical—they are generational. Our teams understood that real legacy isn’t built on what we construct, but on what we protect. Cobeal’s international reach is matched only by its ethos: a belief that excellence in infrastructure is a public good, not just a business achievement.



I'VE LIVED AND WORKED IN MEXICO, PARIS, AND SINGAPORE WHILE LEADING OFFSHORE INFRASTRUCTURE PROJECTS AND COMPLEX ENVIRONMENTAL SYSTEMS FOR NATIONAL MUSEUMS AND CULTURAL INSTITUTIONS. THE WORK SPANNED CONTINENTS, BUT SO DID LIFE. I RAISED MY CHILDREN WITH A GLOBAL, ART-CENTERED EDUCATION SHAPED BY CULTURAL FLUENCY AND HANDS-ON EXPERIENCE. IT WAS AN EXTRAORDINARY GIFT—TO RAISE GLOBALLY MINDED CITIZENS WHILE BUILDING THE SYSTEMS THAT WILL SERVE THEIR GENERATION.



Precision in Motion

EPC of CALM Buoy for CASPIAN SEA FSO

Caspian Sea Field, Malaysia

2008



MURPHY
OIL CORPORATION
Sarawak Oil. Co., Ltd.

PETRONAS
CARIGALI

Engineering, Procurement & Construction of SPM Buoy mooring system for Caspian Sea FSO at West Patricia Field for Murphy Oil / Petronas.

Scope of Work:

- Design & Fabrication of an SPM Buoy
- Procurement of all critical components

Specifications:

- 150 MT disconnection criteria
- Diameter: 11m – Overall Height: 8m
- Single-path 8" Product Swivel Unit (PSU)
- Moored by Drag Anchors & 76 mm Stud-less Chain Legs
- Certification by Lloyd's Register (LR)

The specification of the FSO (Caspian Sea) are as follows:

- 105,000 DWT
- Double chain stopper & Hawser Arrangement

In 2008, Cobeal supported the EPC delivery of a CALM Buoy mooring system for the Caspian Sea Floating Storage and Offloading (FSO) unit, under Pape Engineering, serving Murphy Oil and Petronas Carigali. This project marked Cobeal's first major offshore engagement and introduced the company to the operational demands of one of the world's most logistically and environmentally complex regions.

Working in the Caspian meant adapting to geopolitical sensitivity, strict transport and clearance requirements, and rapidly shifting marine conditions. From staging assets to coordinating international shipping and customs compliance, every move required precision and foresight. Cobeal's role extended to co-developing the installation strategy and supporting structural reliability assessments to ensure long-term performance.

This early project defined the company's ethos: deliver results through clear planning, integrated partnerships, and sustained attention to the conditions shaping each project. It laid the foundation for Cobeal's future work in high-stakes environments and continues to serve as a benchmark for regional impact achieved through disciplined logistics and technical integrity.

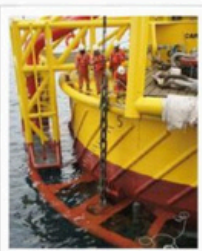
Precision in Motion

EPCI of 2 CALM Buoys for OFFLOADING TANKERS

Sabah Oil & Gas Terminal (SOGT), Kimanis
Completion 2012



SAMSUNG ENGINEERING



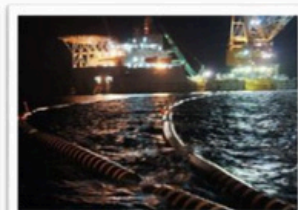
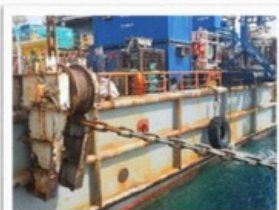
The installation campaign consisted of the following:

- Coordination of logistics and clearances of all installation equipment
- Transportation of all major assets South Kimanis
- Chain prelay & Pull test at design tension using anchored construction barge
- PLEM Installation
- Transportation of SPM Buoys and hookup to mooring chain legs
- Riser tie-in & Floating hose installation
- Pre-Commissioning as per ABS requirements

Simultaneous Engineering, Procurement, Construction & Installation (EPCI) of two CALM Buoys aimed at berthing shuttle tankers at Kimanis Field.

Specifications of SPM Buoy:

- [SPM1] 250,000 DWT export tankers with a flowrate of 50,000 bbl/hour
- [SPM2] 120,000 DWT export tankers with a flowrate of 25,000 bbl/hour
- 29m water depth
- ABS Classification
- 2 x 20" 300m long under-buoy hoses



In 2012, Cobecal was called to solve one of the more intricate logistical challenges in the region: the basic and advanced engineering for two CALM buoys for the Sabah Oil & Gas Terminal in Kimanis, Malaysia. Commissioned by Petronas and Samsung Engineering under Swiber, the project required seamless integration of engineering precision, maritime coordination, and regulatory compliance.

At the core was a logistics puzzle. Every component, from inspection gear to the massive PLEM structures, had to be moved across international borders, staged, and deployed on a narrow schedule in one of Southeast Asia's busiest maritime corridors. Pre-clearance of inspection equipment, alignment with ABS protocols, and transportation of mooring systems to South Kimanis had to happen without disrupting commercial shipping lanes or delaying the project timeline.

Installation of the PLEMs required precision on the seabed, but that only came after orchestrating inland transport, offshore support vessels, environmental assessments, and real-time coordination across multiple time zones and jurisdictions. Pre-commissioning under ABS oversight demanded strict sequencing and verified documentation.

This was more than engineering. It was high-stakes orchestration. And it demonstrated what my teams do best: solve complex, high-impact infrastructure problems through disciplined execution and accountable leadership.

“Closing my chapter at Cobeal by commissioning one of Mexico’s most advanced power stations is more than a technical achievement—it’s a commitment to building infrastructure that serves both people and planet for decades to come.”



My final project with Cobeal is the commissioning of environmental control systems at the CCC Tuxpan Phase I Power Station in Veracruz, Mexico—an 1,086 MW natural gas facility owned by the Comisión Federal de Electricidad (CFE) and executed under contract with Kiewit Corporation.

As part of the core team overseeing backup power and precision commissioning, our scope includes humidity control, thermal regulation, and air quality systems essential to turbine longevity and plant efficiency. Every aspect of the project meets strict safety, compliance, and performance standards.

Scheduled for completion in 2025, this work marks a meaningful close to my tenure at Cobeal—delivering resilient energy infrastructure for a nation I have long served.

BIBLIOTECA PALAFOXIANA, PUEBLA, MEXICO

At the end of the day, it takes the collective efforts of many committed experts to protect our world.

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Sophy Laughing

Steward of Systems that Protect
Life, Culture, and the Environment

JUNE 2025: SENIOR EXECUTIVE
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