

Women in Energy:

PIONEERS, INNOVATORS, AND CHANGE MAKERS IN MALAYSIA



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Foreword

Nurul Izzah Anwar



Nurul Izzah Anwar

I've worn many hats throughout my life, but at my core, I remain deeply committed to building a more inclusive and sustainable future. The challenges I've faced and the victories I've celebrated have shaped my journey and strengthened my dedication to champion for equity in every space I occupy.

This book is a celebration of remarkable women who redefined leadership in the energy sector. Their stories stand as testaments of their ingenuity, resilience, and unwavering dedication to progress. At a time when the energy industry is undergoing profound transformation, these women demonstrate that diversity is not merely a goal – it is the key to ensuring inclusivity, unlocking innovation and achieving success.

The transition toward a more sustainable energy future is not solely about addressing climate challenges. It is also about ensuring social equity and leaving no one behind. These principles underpin the work of

the women featured in this book. They are not only driving sustainable innovation but also creating spaces where women are empowered and diverse voices are heard and valued. Leaders who will manage the upcoming energy transition carry the immense responsibility of ensuring it is just – one that fosters equity, inclusivity, and opportunity for all.

The recent COP29 summit in Baku, Azerbaijan, underscored the critical need for a just transition in the global shift towards a low-carbon economy, while exposing the deep rift in global climate finance commitments. Despite developing nations' call for \$1.3 trillion annually, with \$600 billion in grants, developed countries pledged only \$300 billion per year until 2035, heavily relying on private finance.

This approach risks increasing debt burdens on developing nations and significantly undermines the Paris Agreement's 1.5°C target. Nations like India, Brazil, and Colombia expressed dissatisfaction, with India's delegate Chandni Raina describing the agreement as just "a little more than an optical illusion," reflecting the widespread sentiment that financial commitments are insufficient to address the magnitude of the climate crisis.¹

The inadequacy of funding jeopardises global climate goals and threatens socio-economic stability in developing nations. Leaders managing the energy transition must ensure that it is just, addressing environmental imperatives and socio-economic needs equitably, while fostering inclusive dialogue and equitable resource distribution. Ensuring that no nation is left behind in the pursuit of sustainable development remains our collective mission.

At the heart of this transformation lies the necessity of communication and consultation with affected communities, including workers and their families. In Malaysia, the energy sector employs only 20% women, despite women making up 53.2% of STEM graduates.

These figures highlight the need for targeted initiatives, such as reskilling programmes and inclusive policies, to ensure equitable opportunities. Reskilling and retraining workers in industries such as fossil fuels or traditional automotive manufacturing are critical components of a just transition. However, these processes are not without challenges. They require collaborative efforts from governments, employers, and industries to ensure inclusive participation and the creation of equitable opportunities for all.

Disparities extend beyond employment; a 20.8% gender wage gap persists among managers in Malaysia, while women in professional roles face a 14.1% wage imbalance compared to their male counterparts. Initiatives like the National Energy Transition Roadmap and the National OGSE Sustainability Plans are critical in addressing these disparities.

However, success depends on fostering collaboration across industries, governments, and communities to reskill affected workers and incorporate diverse perspectives. Whether it is tackling fuel poverty in vulnerable regions or creating opportunities for women to lead in emerging green industries, the energy transition must ensure that no one – regardless of gender, background, or socioeconomic status – is left behind.

Fuel poverty, a growing concern in many parts of the world, highlights the urgency of an equitable energy transition. From low-income households in the United Kingdom struggling to balance heating and other essentials to communities in Gaza facing severe energy shortages exacerbated by conflict, the transition to sustainable energy must prioritise access and affordability. Addressing these inequities requires targeted measures, such as subsidies, energy efficiency grants, and community-level support to ensure that clean energy solutions are accessible to all, especially the most vulnerable.

The success stories of women-led initiatives in the energy sector demonstrate the transformative power of inclusive leadership. From my time in Parliament to my current role at SERI, and Insya-Allah with other engagements to come, I have witnessed firsthand how dismantling barriers and creating inclusive frameworks lead to meaningful change. Empowering women moves the needle in sourcing sustainable, inclusive solutions and remains part of the equation in amplifying marginalised voices.

This book is not just a celebration of achievements – it is a call to action. Let it serve as a powerful reminder that creating a better future requires us to elevate and empower women at every level of leadership. May it inspire policymakers, industry leaders, and communities to act swiftly and decisively, for only through unity can we advance toward a brighter, more equitable future.

Nurul Izzah Anwar
Chairperson, Social & Economic Research Initiative (SERI)

1. Yin, S. L., & Nurul, F. A. S. (2024). Climate finance controversy: No deal better than a bad deal? Kuala Lumpur: Khazanah Research Institute.

Foreword

Datuk Dr Yatimah Binti Sarjiman



Datuk Dr Yatimah Binti Sarjiman

“Women in Energy,” presents the extraordinary stories of women who have risen to prominence in one of the most male-dominated sectors of the global economy. These narratives go beyond professional success - they are vivid testimonies to courage, perseverance, and visionary leadership.

In an industry steeped in tradition, these trailblazers have redefined leadership and overcome barriers, proving their worth and paving the way for others.

Malaysia’s unwavering commitment to a sustainable and equitable future is evident in its progressive policies aimed at promoting gender equality and diversity. The National Energy Transition Roadmap (NETR), exemplifies this vision by providing a clear path to transform our energy landscape. By aligning with global sustainability goals, the NETR not only drives innovation but also highlights the critical role of women in spearheading energy transition efforts.

Our collective journey toward progress is further reinforced by transformative policies such as the New Industrial Master Plan 2030 (NIMP 2030) and the 12th Malaysia Plan (RMK12), which position women’s empowerment as central for economic growth. These policies advocate for increased women’s participation in leadership, entrepreneurship, and decision-making, ensuring that women remain integral to Malaysia’s progress.

Despite global efforts, the energy sector faces significant challenges in meeting global diversity, equity, and inclusion (DEI) goals. Women’s representation in the global oil and gas industry increased marginally from 22% in 2021 to 23% in 2023.²

According to a 2022 United Nations report, women account for approximately 35% of STEM students globally. However, Malaysia presents a more promising narrative. A 2021 study revealed that women comprised 53.2% of STEM graduates from local tertiary institutions, highlighting a promising talent pipeline.³

Women leaders are critical to advancing economic, environment, social and governance goals. Research on S&P 500 companies indicates that companies with gender-diverse boards and management teams deliver stronger financial performance, including higher returns on equity (ROE).⁴ Encouragingly, within Malaysia’s OGSE sector, 7 out of 26 public-listed companies have achieved at least 30% female representation on their boards, while 10 (38%) have reached this benchmark in senior management. This stands in stark contrast to the global oil and gas industry, where women hold only 20% of senior leadership positions.⁵

The Malaysian Code on Corporate Governance (MCCG) advocates for at least 30% female representation on corporate boards, a policy that continues to gain support from key institutions like Bursa Malaysia. These initiatives reflect our nation’s commitment to fostering diversity as a driver of innovation, resilience, and success across all sectors. While Malaysia has made significant strides in empowering women, more work lies ahead. Through deliberate government policies, industry support, and community advocacy, we are fostering an environment where women can thrive as leaders, innovators, and changemakers.

This publication is an invitation for reflection and growth.

The stories challenge us to dismantle barriers, create opportunities, and mentor the next generation of women leaders. They remind us that true progress is achieved by

uplifting others and ensuring that every woman, regardless of background, has the chance to succeed.

To the authors and contributors of “Women in Energy,” congratulations on amplifying the voices of these extraordinary women. May this book inspire readers to champion gender equity and harness the boundless potential in empowering women.

Together, let us build a future where the energy of women fuels innovation, sustainability, and shared prosperity.

Datuk Dr Yatimah Binti Sarjiman
Deputy Secretary-General (Sectoral),
Ministry of Economy

2. Whitney Hughes-Plummer, Andrea Syth, Nikolay Belkov, Alex Wood, Pedro Miras, Dr. Pierce Riemer, and Sarah Beattie, Untapped Reserves 3.0: Advancing Diversity, Equity, and Inclusion in the Energy Sector, September 2023.

3. Khazanah Research Institute, “Malaysia’s Gender Gap in STEM Education and Employment,” Views 6/23, 8 March 2023.

4. Whitney Hughes-Plummer, Andrea Syth, Nikolay Belkov, Alex Wood, Pedro Miras, Dr. Pierce Riemer, and Sarah Beattie, Untapped Reserves 3.0: Advancing Diversity, Equity, and Inclusion in the Energy Sector, September 2023.

5. Ibid

Introduction

Journey in Empowering Female Leadership: Driving Diversity and Inclusivity to Fuel the Growth of Malaysia's Energy Sector

In the pursuit of Malaysia's ambitious goal to achieve net-zero emissions by 2050, the energy sector stands at the crossroads of innovation, transformation, and sustainability. Central to this journey are the individuals who not only lead but inspire, paving the way for a future powered by clean energy and inclusive practices. Among these trailblazers are the women who have left indelible marks on Malaysia's energy landscape—pioneers, innovators, and changemakers who have shaped policies, driven innovation, and fostered growth in a traditionally male-dominated industry.

Women's Role in the Oil & Gas and Energy Sector

The energy sector globally has witnessed significant strides toward inclusivity, yet persistent challenges remain, particularly in integrating more women into its workforce. Globally, women account for only 22% of the oil and gas workforce and 32% in the renewable energy sector, reflecting the need for focused initiatives to bridge this gender gap. In Malaysia, as the country advances its commitments to sustainability and clean energy, there is an opportunity to amplify women's contributions to this critical industry.

The World Bank's "Tracking SDG 7" report highlights the pressing need to tackle the underrepresentation of women in STEM and technical roles, areas crucial for driving innovation in the energy transition. Similarly, the "Toward More and Better Jobs for Women in Energy" assessment emphasises the importance of promoting women in STEM education and leadership roles, advocating for policies that create an inclusive and supportive environment. Regional programmes like WePOWER have demonstrated how cross-sector collaborations and targeted interventions – such as mentorship, training programmes, and flexible work policies – can enhance female participation in the sector, benefiting both communities and economies.

In Malaysia, the energy transition provides a unique platform to showcase the pivotal roles women play as pioneers and innovators. By leveraging international models and localising them within Malaysia's socio-economic and

cultural framework, the nation can position itself as a leader in gender-inclusive energy policies. This publication aims to celebrate the trailblazers in Malaysia's energy landscape, sharing their stories and highlighting actionable pathways for empowering more women to lead the charge in shaping the future of energy.

Through global insights and local successes, *Women in Energy* underscores the role of gender inclusivity as not only a matter of equity but also as a strategic imperative for achieving sustainable and resilient energy solutions for Malaysia and beyond.

Women in Energy: Pioneers, Innovators, and Change Makers in Malaysia was born out of a vision—a bold and urgent need to document the untold stories of resilience, brilliance, and leadership in the nation's energy sector. The concept, envisioned by Datuk Dr. Yatimah Sarjiman, Deputy Secretary-General (Sectoral), Ministry of Economy, emerged after numerous forums on the women's agenda revealed a glaring gap: too often, extraordinary women who had made monumental contributions to the industry seemed to vanish from the spotlight. Their legacies, vital yet unrecognised, risked fading into obscurity.

As Malaysia embarks on a transformative energy transition guided by the National Energy Transition Roadmap (NETR) and its strategic emphasis on Renewable Energy (RE) and New Energy (NE), the narratives captured within these pages gain profound significance. This book is not just a chronicle of achievements; it is a reclamation of history. It marks the beginning of a series of publications that will etch the legacy of women in energy into Malaysia's narrative, ensuring their stories inspire generations to come.

This book is a collaboration with MyWiE that builds upon the foundations laid by the MyWiE Purple Book, a critical approach for diversity, equity, and inclusion within the energy sector. It amplifies voices that have transformed policies, sparked innovation, and driven the energy transition. More importantly, it challenges the sector to go further—to attract,

retain, and elevate women in all facets of the industry, particularly in leadership roles and STEM fields.

The book is divided into two distinct sections, each highlighting the invaluable contributions of women in the energy sector. The first section shares the stories of 25 exceptional women who have overcome challenges, broken barriers, and played a vital role in shaping the industry's future. The second section features the 11 MyWiE champions, male allies and individuals whose tireless efforts have driven progress in promoting gender diversity and inclusion. Together, these sections showcase the power of women's leadership and their pivotal role in creating a more inclusive and dynamic energy sector.

The first section of this book profiles 25 extraordinary women who represent every facet of Malaysia's energy ecosystem:

- **Ministries and Policymakers:** Visionaries from the Ministry of Economy, the Ministry of Science, Technology and Innovation (MOSTI), and the Ministry of Natural Resources and Environmental Sustainability (NRES) who have laid the foundation for transformative energy and water policies.
- **Government Agencies and Industry Shapers:** Leaders from Malaysia Petroleum Resources Corporation (MPRC), the Jabatan Tenaga Atom Malaysia (AELB), Malaysian Green Technology and Climate Change Corporation (MGTC), and Bursa Malaysia who have driven progress

through innovative programs, policy advancements, and regulatory and market innovations.

- **Regulators and Operators:** Icons from PETRONAS, Shell, and Hibiscus Petroleum who have demonstrated operational excellence and visionary leadership, inspiring future generations.
- **Oil and Gas Services and Equipment (OGSE) Sector Innovators:** Trailblazers such as MMC Corporation Berhad, Aerodyne, and Eureka Efektif, who have reshaped the industry through the integration of advanced technology and sustainable practices.
- **Renewable Energy and New Energy Contributors:** Champions of Malaysia's green agenda from Tenaga Nasional Berhad (TNB), Universiti Kebangsaan Malaysia (UKM), and International Consultant on Nuclear Energy and Innovation who are spearheading advancements in clean energy solutions and paving the way for a sustainable and resilient future.

These profiles capture not only their professional achievements but also their personal journeys—their struggles, triumphs, and determination to make a difference. The list of women leaders featured here is not exhaustive. Many other distinguished women leaders with remarkable contributions were invited but could not participate due to various constraints. Those showcased represent only a small selection of the many exceptional individuals driving progress in this field.



Acknowledging Advocates and Allies

This book is a collaborative effort with MyWiE, a network built on the collective strength of platforms like PETRONAS Leading Women Network (PLWN), Shell Women Action Network (SWAN), TNB Women in Energy Network (TWiEN), Sarawak Energy Leading Women Network (SELWN), Women in Energy, Gas and Oil (WeGO) and other women-focused initiatives in the energy sector. The second part of the book celebrates 11 exceptional MyWiE champions, individuals whose relentless dedication has advanced the cause of gender diversity and inclusion across the industry.

Since its inception in 2018, MyWiE has become a cornerstone for change, driven by industry leaders and key influencers. It is a platform with a clear mission: to attract women into technical roles, nurture their leadership potential, and support their professional growth at every stage of their careers.

This section also acknowledges the critical role of male allies who have stood alongside these women, reinforcing that the path to inclusivity is one we must all walk together. It honors the contributions of past MGA members while shining a light on the new generation of female leaders who are redefining the energy sector and driving it into the future.



A Call to Action

This book is more than a tribute; it is a call to action. It dares the energy sector to rethink its status quo, to embrace diversity, and to empower the next generation of leaders. It challenges us all to ensure that the journey toward net-zero emissions is driven not only by technology and policy but by the boundless potential of human ingenuity—by women and men working in unison.

Women in Energy: Pioneers, Innovators, and Change Makers in Malaysia is a beacon for the future. It captures the spirit of those who have come before us and lights the way for those who will come after. It is a rallying cry for progress, a celebration of resilience, and a promise of what is yet to come.

To the future generations who read this book: may you be inspired, may you be bold, and may you carry forward the momentum to create a brighter, more inclusive world.





Powering Up the Energy to Empower Women

**Datuk Dr Yatimah
Binti Sarjiman**

Deputy Secretary-General (Sectoral),
Ministry of Economy

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The gender disparity has been something I’ve come to recognise and challenge throughout my journey. It’s clear that while women are at the forefront of making things happen on the ground, we’re still underrepresented at the decision-making table. We need more women in leadership, and that starts with fostering a culture where women support and lift each other up.”

Throughout my career in the energy sector, I have witnessed firsthand the tremendous impact women have in making things happen. Not in the abstract, not in some vague, feel-good sense - no. I mean through the real, tangible progress that shapes industries, communities, and lives.

We do this even while balancing responsibilities, breaking stereotypes, and navigating a system that often feels like it wasn’t designed with us in mind.

In fact, it’s often women who drive progress on the ground, even though the leadership positions in this industry remain overwhelmingly male-dominated.

Women are at the forefront of innovation and change, bringing unique perspectives and driving progress in every field. However, there remains immense potential to increase female representation in leadership roles, particularly in the energy sector. Currently, the number of women in top leadership positions, such as CEOs, is still limited—



but this presents a powerful opportunity for growth and transformation.

This is why I've made it my mission to inspire and empower more women in all sector particularly the energy industry which is the backbone of Malaysia.

Contributing to Nation Building Through Policy

Throughout my journey, I've had the privilege of contributing to nation-building through active involvement in policy formulation. My role in developing the 12th Malaysia Plan (RMK12) provided an opportunity to help shape strategies aimed at fostering sustainable economic growth and inclusivity. As we now embark on crafting the 13th Malaysia Plan (RMK13), I remain deeply committed to this critical endeavour. These policies are not merely documents; they serve as blueprints for our collective future. It is an honor to play a part in steering our nation toward progress, resilience, and shared prosperity.

Changing the Status Quo Through Networking

Here's something I've learned from a mentor: success isn't just about what you know—it's also about fostering collaboration and building meaningful partnerships. When we come together with people and organisations that share a common vision, we can amplify resources, combine strengths, and achieve outcomes that have a lasting impact.

A great example of this is the collaboration that brought Women in Energy: Pioneers, Innovators, and Change Makers in Malaysia to life. Over just 3 months, this book was developed through the collective effort of passionate individuals and organisations who believed in celebrating and empowering women in the energy sector. This achievement wouldn't have been possible without the dedication and input of everyone involved.

Similarly, the National Energy Transition Roadmap (NETR) is another testament to the power of partnership. This ambitious plan was realised through the invaluable support of the Ministry of Economy, PETRONAS, TNB, and other key stakeholders. Their collective expertise and shared commitment to a sustainable future played a pivotal role in shaping a comprehensive strategy for Malaysia's energy transition.

These examples show that collaboration is more than just working together—it's about aligning visions, pooling resources, and driving meaningful action. When we unite our efforts, we create outcomes that benefit everyone and set a foundation for continued progress.

Navigating Leadership Challenges

Leadership in the energy sector comes with its own unique set of challenges, particularly for women. Over the years, I've learned that to succeed, you need a solid support system. You need the backing of your supervisor, your team, and your colleagues. Without that, it's nearly impossible to make progress.

I have experience working in diverse settings across different ministries, which has equipped me with the agility and resilience needed to navigate dynamic environments and manage a variety of projects effectively.

But beyond these structural challenges, there's the emotional resilience needed to handle criticism. Throughout my career, I've always reminded myself, and others, not to take criticism too personally. Life is too short to let others' opinions affect you. As I often tell the people around me, "Don't be too sensitive. Take criticism as a learning opportunity, not as a personal attack." It's this mindset that has allowed me stay focused on my jobs. You can't please everyone, and that's okay.



Opportunities and Emerging Trends in the Energy Sector

The energy sector is undergoing constant evolution, and I'm inspired by the opportunities it presents, particularly in renewable and clean energy. For example, nuclear energy is one form of clean energy. Modular nuclear technology, a safer and more scalable approach, stands out as a promising solution to address Malaysia's growing energy demands. Encouragingly, the Government has begun to explore nuclear power as a viable option, and I believe it holds significant potential for our future energy landscape.

Balancing affordability, sustainability, and security within the energy trilemma remains a critical priority. In Malaysia, there is significant potential to enhance investment in renewable energy by optimising market structures and regulatory frameworks. By embracing innovative approaches and fostering collaboration, we can create opportunities to accelerate the transition to cleaner, more sustainable energy solutions.

While this shift will undoubtedly be challenging, it is essential if we are to achieve a more sustainable and resilient energy future for Malaysia.

Let's empower each other and power up together

Moving forward, I am deeply committed to seeing more women rise to leadership positions in the energy sector. We bring unique perspectives, skills, and a sense of determination that are essential for driving the sector forward. But it's not just about getting into leadership positions; it's about creating an environment where women can thrive and succeed.

I urge all women to be bold and take on challenges. As I always say, "Don't wait for opportunities – create them." If there's something you want to achieve, go for it, even if it

feels daunting. Embrace the discomfort, because it's through these challenges that we grow. Take calculated risks, build your network, and push boundaries.

Our journey toward a sustainable, inclusive energy sector starts with each of us. Women have an integral role to play, not just as participants, but as leaders. We must actively shape the future of this sector, break through barriers, and make our voices heard.

Be curious, embrace lifelong learning, and stay open to change. Build a strong foundation in technical skills, but also develop soft skills like communication and leadership. Most importantly, always act with integrity and a commitment to sustainability.

Collaborating for a Better Future

The road to achieving net-zero emissions is long and challenging, but it's also full of opportunities to collaborate across sectors - government, industry, and communities - we can achieve our sustainability goals.

Policy will be crucial in this process, and we must advocate for frameworks that enable investment in renewable energy and green technologies.

I believe that, together, we can build a more inclusive, dynamic, and sustainable energy sector. It won't be easy, but it's something I'm committed to working towards every day.

Let's create the future we want to see - not just for ourselves but for generations to come.





Advancing Energy for the Nation's Interests

Dr. Afiza Idris

Director of Energy Division,
Ministry of Economy

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Diversity is not just a moral imperative but a strategic advantage. Women leaders, through inclusive practices and pragmatic decision-making can foster conducive environments where innovation thrives. I believe the future of the energy sector will be shaped by leaders who embrace teamwork, diversity, and a commitment to nurturing talent.”

A Visionary in Energy Transition

Since joining the energy sector in September 2022, my journey has been one of rapid and impactful achievements. Among the most notable milestones is the launch of the National Energy Transition Roadmap (NETR) which was completed within an impressive six months.

This accomplishment underscores the dedication and capability of my team in navigating complex tasks and delivering meaningful results. As we move forward, I am spearheading initiatives such as the Technical Working Group on Green Economy for the 13th Malaysia Plan and the development of the Natural Gas Roadmap (NGR), set for launch in 2025 – which I anticipate will be the “Year of Natural Gas.”

These efforts are complemented by the strategic elevation of the energy sector as one of the High Growth High Value (HGHV) industries under the Mid-Term Review of the 12th Malaysia Plan. Such advancements align with Malaysia's aspirations for sustainable development and energy resilience.



A Strong Foundation in Economics and Leadership

My post graduate journey began with a Master's degree in Economics from Universiti Putra Malaysia in 2008, culminating in a PhD from the same institution in 2021, whereby my research was focused on trade policy, innovation, and export survival.

I embarked on my professional career as a civil servant in 2000, starting at the Economics and International Division of the Ministry of Finance.

Over the years, I honed my expertise across various roles including services sector liberalisation, financial markets, and environmental management.

In September 2022, I assumed the role of Director of the Energy Division, a position that has allowed me to integrate my extensive experience into shaping Malaysia's energy future.

Innovative Projects in Energy

Upon joining the Energy Division, I was immediately thrust into pivotal tasks, such as managing the transfer of gas supply regulatory power to the Sabah state government. By the final months of 2022, my team and I were tabling numerous Cabinet papers on diverse aspects of natural gas – from pricing for the power sector to infrastructure regulatory frameworks. Additionally, we organised a roundtable discussion on the Road to COP27 within just two weeks, exemplifying our agility and commitment.

The turning point came with the change of national leadership in November 2022, which brought a renewed focus on energy transition. Following the Minister's announcement to develop the NETR within three months, we undertook a meticulous process of stakeholder engagement, policy stocktaking, and scoping to build the roadmap framework. This herculean effort

culminated in the NETR's two-part launch: the unveiling of 10 flagship projects in July 2023 and the full roadmap in August 2023.

Through NETR, we established the National Energy Council (MTN) and the National Committee on Energy Transition (NCET), setting the stage for governance improvements and the operationalisation of the National Energy Transition Facility (NETF) by 2025. These initiatives are transforming Malaysia's energy landscape, aligning policy with innovation and action.

Women as Changemakers in Energy

Leadership in energy requires a balance of short-term results and long-term vision. Women bring unique perspectives to this challenge. I'm proud to serve as the tenth woman leading the Energy Division. With gender parity among our team's social science and STEM professionals, we've cultivated a culture of collaboration and innovation.

Meaningful progress stems from strong teamwork and shared ownership of responsibilities. I prioritise fostering a dynamic environment where ideas are openly debated, ensuring that every member feels valued and empowered. This collaborative approach has been instrumental in achieving our ambitious goals.

Diversity is not just a moral imperative but a strategic advantage. Women leaders, through inclusive practices and pragmatic decision-making can foster conducive environments where innovation thrives. I believe the future of the energy sector will be shaped by leaders who embrace teamwork, diversity, and a commitment to nurturing talent.

Challenges in Energy Leadership

The energy sector's complexities demand a holistic approach to leadership. From meeting decarbonisation targets

and addressing the limitations of renewable resources to navigating the economic impacts of imported technologies, the challenges are vast. Tackling these requires collaboration across ministries, agencies, and industries.

Our whole-of-nation approach under NETR exemplifies this philosophy, emphasising shared responsibility in achieving emissions reductions and economic growth. As a leader, I have learned to traverse the interconnected realms of technical, strategic, and international relations with grit and people-centric values. Women leaders are increasingly driving such collaborations, evident in partnerships with organisations like PETRONAS, TNB, and Khazanah Nasional.

Emerging Opportunities for Women

Malaysia's energy sector offers growing opportunities for women, particularly in renewable energy, sustainability, and green technologies. Solar energy, for example, presents roles in engineering, project management, and research. Similarly, the emphasis on green buildings and biomass utilisation creates pathways in sustainable design and energy auditing. Initiatives like the National Energy Transition Roadmap provide frameworks for women to engage in public education, STEM advocacy, and mentorship programmes.

By addressing systemic barriers and fostering inclusive policies, we can unlock the full potential of women in shaping Malaysia's sustainable energy future.

Capitalising on Trends to Drive Innovation

Innovation thrives on collaboration. At BTE we engage stakeholders, industry players, and academics to develop solutions that bridge technology with societal needs. Lifelong learning, inclusivity, and purpose-driven action are at the heart of our approach.

To drive meaningful innovation, we begin by aligning technology with social needs, designing programmes that address gaps and working backwards to build effective work plans. This deliberate approach ensures we deliver sustainable, impactful solutions. Whether it's enhancing energy access for rural communities or assessing the viability of new natural gas infrastructure, our work is guided by clarity, consistency, and collective will.

For women in the energy sector, the message is clear: seize opportunities, challenge norms, and lead with resilience. By fostering an inclusive, dynamic ecosystem, we can drive transformative change for Malaysia and the world.





Championing Carbon Solutions: Advancing Sustainability with CCUS Technology

Dr. Noranida Zainal

Director,
Environmental and Natural Resources
Division, Ministry of Economy

“

Women have a unique opportunity to shape the energy sector's future by leveraging their diverse skill sets and collaborative leadership styles. To capitalise on emerging trends, women must prioritise gaining expertise in fields such as renewable technologies and carbon management. These are not merely growth areas but key pillars of the energy transition.”

Crafting a Sustainable Future

As Director of the Environmental and Natural Resources Division (BEASSA) at the Ministry of Economy, I have always believed that sustainable development is not merely a goal but a necessity.

My journey in integrating environmental sustainability into Malaysia's economic framework has required balancing ambition with pragmatism. Every policy and project represents a step towards a Malaysia that thrives economically while safeguarding its natural heritage for future generations. My academic journey laid the foundation for this vision. Earning a PhD in Urban and Regional Planning from The University of Sheffield, UK equipped me with not only theoretical knowledge but also the tools to address complex, real-world challenges. I learned that effective planning is not about choosing between development and conservation – it is about harmonising the two to achieve sustainable progress.

Leading Innovations in Energy Transition

One of the most transformative projects I have led is Malaysia's



Carbon Capture, Utilisation, and Storage (CCUS) initiative, a cornerstone of our commitment to decarbonisation and achieving net-zero by 2050. CCUS is more than just a technological innovation, it is a testament to Malaysia's ambition to balance economic growth with environmental responsibility.

This initiative is closely aligned with the National Energy Transition Roadmap (NETR) and the New Industrial Master Plan 2030 (NIMP 2030). Beyond its role in reducing carbon emissions, CCUS serves as an economic catalyst, introducing advanced technologies and fostering collaboration across industries. A major milestone in this journey has been the drafting of the CCUS Bill, which is expected to be gazetted in the first quarter of 2025. Once enacted, this legislation will provide a robust framework for cleaner energy solutions, cementing Malaysia's position at the forefront of the global energy transition.

Breaking Barriers, Building Bridges

Throughout my career, I have witnessed how women bring unique strengths to leadership roles—collaboration, empathy, and an innate ability to think long-term. These qualities are invaluable in the global energy sector as we confront complex challenges such as climate change and the energy transition.

Women leaders often prioritise sustainable and socially inclusive solutions, ensuring the benefits of energy transition reach all levels of society. As more women step into decision-making roles, we are not just breaking barriers but building bridges. Whether advocating for renewable energy integration or championing energy efficiency, women are

leading with purpose, paving the way for a more inclusive and innovative industry.

Our contributions to policy, technology, and corporate strategy will ensure that the global energy transition is both economically viable and socially equitable. By fostering diverse leadership and empowering underrepresented communities, women are creating a more resilient and inclusive energy future.

Overcoming Barriers in Energy Leadership

Leadership in the energy sector comes with its own set of hurdles, particularly for women in a historically male-dominated industry. One of the biggest challenges I have faced is overcoming entrenched gender biases, which often necessitate repeatedly proving my expertise. Complex projects, such as CCUS, add additional layers of regulatory and decision-making challenges; demanding unwavering focus and adaptability.

To navigate these challenges, I have relied on three key strategies: continuous learning, building strong networks, and resilience. Staying informed about the latest advancements in the industry ensures that I remain a credible and authoritative voice in technical and policy discussions. Developing supportive professional networks has also been crucial, fostering collaboration and shared growth.

Flexibility in the face of obstacles, coupled with a commitment to creating inclusive spaces, has been a guiding principle throughout my career. By embracing strategic thinking and a solutions-oriented mindset, I have been able to lead effectively and inspire confidence in others.



Unlocking Opportunities in the Energy Transition

The rapid transformation of the energy sector is creating unprecedented opportunities for women, particularly as new technologies and sustainability initiatives redefine the industry's landscape. CCUS is increasingly recognised as a key driver of economic growth, supporting low-carbon and green growth strategies. As Malaysia commits to achieving net-zero emissions by 2050, CCUS emerges as a cornerstone of our climate agenda, presenting women with opportunities to lead in fostering international partnerships, policy development, and innovation within this transformative field.

The global shift towards renewable energy, sustainability, and digitalisation opens up diverse pathways in solar, wind, energy storage, and smart grids. These advancements demand expertise in engineering, technology, and data-driven energy management systems—areas where women can significantly contribute. Moreover, as Malaysia positions itself as a regional hub for climate action, women's leadership in interdisciplinary problem-solving and policy reform becomes increasingly vital in shaping a more equitable, sustainable future.

Charting the Course for Women in Energy

Women have a unique opportunity to shape the energy sector's future by leveraging their diverse skill sets and collaborative leadership styles. To capitalise on emerging trends, women must prioritise gaining expertise in fields such as renewable technologies and carbon management. These are not merely growth areas but key pillars of the energy transition.

Building strong professional networks and engaging in mentorship are equally important. By fostering communities of support and collaboration, women can break down barriers and drive meaningful change. Advocating for policies that promote diversity in the workforce ensures that future opportunities are inclusive and accessible to all.

By remaining at the forefront of sustainability discussions and championing innovation, women can develop solutions that prioritise environmental and social impacts. Through their leadership, collaboration, and resilience, women have the power to create a more sustainable and equitable energy landscape for generations to come.





A Journey Through Leadership and Innovation in Energy

Mareena Mahpudz

Under Secretary,
Electricity Supply Division, PETRA

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The energy sector is at a crossroads, demanding innovation, inclusivity, and resilience. Women have the power to redefine this industry, leveraging their unique perspectives to drive sustainable solutions. Together, through mentorship, collaboration, and advocacy, we can accelerate progress toward a net-zero future and inspire generations to come.”

I was born in Kuala Lumpur in 1973 into a family of government professionals, which greatly influenced my early interest in public service and science. Inspired by my father, I pursued my passion for science and technology, earning a Bachelor of Science with Honors in Chemistry from Universiti Sains Malaysia, supported by a PETRONAS scholarship. My career began as a Research Officer in the Analytical Department at Lembaga Getah Malaysia in 1997. A year later, I joined the public sector as an Administrative and Diplomatic Officer and later obtained a Master's Degree in Business Administration through the Public Service Department's sponsorship.

Over my 26-year tenure, I've worked across various ministries and agencies, including the Ministry of Health, Ministry of Science, Technology and Innovation, and the Malaysia Space Agency. My dedication to public service has been recognised twice with the Anugerah Perkhidmatan Cemerlang.

In 2019, I was appointed Under Secretary at the Ministry of Energy Transition and Water Transformation (PETRA), where I lead the Electricity Supply Division. This role has deepened



my understanding of the complexities of energy policy and has positioned me to address critical issues such as the government's Net Zero Greenhouse Gas emissions goal by 2050. My current work includes assessing the feasibility of nuclear energy as a sustainable alternative to fossil fuels, balancing technical, economic, and environmental considerations with public concerns.

Pioneering Cross-Border Electricity Projects

One of the most significant milestones in my career has been leading Malaysia's involvement in a cross-border electricity trading project with Lao PDR, Thailand, and Singapore. Initially starting with a capacity of 100MW, the project has since expanded to 200MW, with Malaysia serving as the second electricity supplier to Singapore.

This initiative required navigating complex challenges, from harmonising regulatory frameworks to ensuring grid compatibility across four countries. The negotiations were intense, involving intricate technical and commercial discussions. However, by fostering collaboration between all stakeholders, we established a robust framework that has enhanced energy security and economic growth across the region. This project not only set a precedent for future cross-border energy trade but also demonstrated Malaysia's leadership in fostering regional energy cooperation.

Exploring the Potential of Nuclear Energy

As Malaysia progresses towards its net-zero 2050 goals, nuclear energy has emerged as a potential cornerstone for sustainable electricity generation. Recognising its

complexities, we've initiated a pre-feasibility study to address technical, economic, and public concerns.

While nuclear energy promises a low-carbon future, public perception remains cautious. Engaging with the public transparently, fostering trust, and dispelling myths are essential to ensure informed decision-making. By carefully evaluating this energy source, we aim to create a roadmap that balances sustainability with safety and social acceptance. Women as Catalysts for Transformation

Women bring unique perspectives and skills that are vital to the energy sector's evolution. By fostering collaboration, leveraging emotional intelligence, and emphasising sustainability, women leaders can drive innovative solutions to address today's pressing energy challenges.

Our ability to engage diverse stakeholders enables us to influence energy policy, promote gender equality, and prioritise environmental and social goals in decision-making. By stepping into leadership roles, women can inspire others to pursue careers in energy, ensuring a pipeline of talent for the future.

Tackling Leadership Challenges with Resilience

Leadership in the energy sector comes with its challenges, especially in balancing the demanding nature of a 24/7 industry with personal responsibilities. The constant vigilance required to ensure electricity supply reliability can strain work-life balance.

I've overcome these challenges by fostering strong teamwork within PETRA and collaborating with key stakeholders like



the Energy Commission, MyPower, and Tenaga Nasional Berhad. These partnerships have enabled us to share knowledge and resources, ensuring more robust outcomes. My family's unwavering support has been instrumental; their encouragement has allowed me to focus on my career while maintaining a fulfilling personal life.

Emerging Trends in Energy: Opportunities for Women

The energy sector is undergoing transformative changes, from renewable energy growth to advancements in grid management and nuclear energy exploration. These shifts present significant opportunities for women to lead innovation in engineering, policy, and technology.

In Malaysia, initiatives like PETRA's renewable energy targets and public awareness campaigns are creating a more inclusive environment. Women can play a pivotal role in driving sustainability and improving energy efficiency, aligning with the nation's ambitious net-zero goals.

Empowering Women to Innovate in Energy

Women in energy can shape the future by leading clean energy startups, advocating for equitable policies, and leveraging diverse skill sets beyond engineering. By embracing a multifaceted approach that includes finance, risk management, and sustainability, we can ensure the energy transition is both economically viable and environmentally responsible.

Collaboration and mentorship are key. Building strong networks, participating in industry events, and fostering inclusivity can amplify women's contributions and inspire the next generation. Women have the potential to bring holistic, innovative solutions to the table, driving impactful change and positioning Malaysia as a leader in the global energy transition.



My Journey in Transforming Malaysia's Energy Landscape

Datuk Badriyah binti Ab Malek

Former Deputy Secretary General,
Ministry of Energy, Science, Technology,
Environment and Climate Change
(MESTECC)

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Diverse ideas, experiences, and perspectives will shape the energy sector's future. Women's participation is not just a moral imperative but a strategic advantage. By fostering inclusivity, we unlock the full potential of our workforce, driving creativity and resilience in an industry critical to global sustainability.”

Embracing a Monumental Challenge

When I was appointed as Undersecretary of Sustainable Energy Division of the Energy & Green Technology division in the Ministry of Energy Green Technology and Water, I felt the weight of a monumental task ahead.

Renewable energy (RE) in Malaysia was stagnant. Despite the introduction of the Five Fuel Policy in 2001, aimed at diversifying the energy mix, only 12 MW of renewable energy had been connected to the grid by 2010. This was a dismal figure, particularly compared to the initial target of 500 MW by 2005. I knew something drastic had to be done.

My journey into the energy sector, however, began years earlier. After graduating with an honours degree in Microbiology from Universiti Kebangsaan Malaysia, I joined the Malaysian civil service in 1988.

My early career saw me navigating various ministries, gaining experience in sectors ranging from procurement to science and technology.

It was not until I was awarded a British Council Scholarship to study Environmental Management at the University of Stirling



in Scotland that my interest in sustainable development truly ignited.

Upon returning to Malaysia, I realised that energy was the lynchpin of progress – a sector that, if transformed, could drive socio-economic growth and environmental stewardship in tandem.

At the Ministry of Energy, Green Technology and Water (KeTTHA), I was responsible for leading the drafting of the National Renewable Energy Policy and Action Plan, a bold blueprint to revitalise Malaysia's energy sector.

The policy, approved in 2010, paved the way for two transformative laws: the Renewable Energy Act 2011 and the SEDA Act 2011.

These laws introduced the Feed-in Tariff (FiT) mechanism, guaranteeing grid access for renewable energy producers and providing premium tariffs to encourage investment. For the first time, renewable energy became a bankable opportunity in Malaysia, attracting investors and spurring unprecedented growth.

Breaking Barriers and Building Confidence

The enactment of these laws was not just about legislation; it was about restoring confidence. For years, renewable energy players had struggled with policy inconsistencies, which eroded investments and trust in the system.

The introduction of the FiT mechanism changed this narrative. By 2021, renewable energy accounted for 17% of Malaysia's electricity generation, with ambitious plans to reach 40% by 2035.

However, my work was not limited to renewable energy alone. I also spearheaded initiatives in energy efficiency (EE), an area that had long been overlooked but was equally critical. "Every unit of energy saved is a unit of energy generated," I would often remind my team.

Leading the development of the National Energy Efficiency Master Plan in 2009 and the drafting of the Energy Efficiency and Conservation Act, which was finally passed in 2023, were among my proudest achievements. These efforts laid the foundation for a future where efficiency and conservation are integral to national energy policy.

The Road Less Travelled

The journey was far from smooth. As a woman in leadership, especially in a traditionally male-dominated sector, I faced numerous challenges. Early in my career, I learned that competence, resilience, and a clear vision could overcome even the most entrenched biases. One of my most significant lessons came during international negotiations for the first multilateral power trading agreement between Thailand, Laos, and Malaysia. Representing Malaysia, I navigated cultural complexities, technical nuances, and high-stakes discussions.

The successful agreement became a cornerstone of the ASEAN Power Grid initiative, a landmark achievement for regional energy integration. It reinforced my belief that leadership transcends gender – it is about collaboration, conviction, and the ability to see the bigger picture.

A Vision for the Future

Looking back on my career, I am proud of the transformative power of bold policies and collaborative efforts. The energy sector today is no longer just about megawatts and grids; it is about people, progress, and the planet.

The National Green Technology Policy, which I helped formulate in 2009, epitomises this vision. By positioning green technology as a key driver for Malaysia's socio-economic growth, it paved the way for innovations that balance development with sustainability. From renewable energy to low-carbon cities, the ripple effects of these initiatives continue to shape a greener, more resilient Malaysia.

Women Driving Equity and Innovation in Energy

Throughout my journey, I have witnessed the growing role of women in the energy sector. Women bring unique qualities to leadership – empathy, meticulousness, and a collaborative spirit – that are invaluable in addressing the complexities of energy transition.

As more women step into leadership roles, we are not just breaking barriers but building bridges. Whether pushing for renewable energy integration or championing energy efficiency, women are leading with purpose and paving the way for a more inclusive and innovative industry.

Diverse ideas, experiences, and perspectives will shape the energy sector's future. Women's participation is not just a moral imperative but a strategic advantage. By fostering inclusivity, we unlock the full potential of our workforce, driving creativity and resilience in an industry critical to global sustainability.

A Legacy of Change

When I reflect on the milestones of my career—the policies enacted, the programmes launched, the barriers broken – I am reminded that real change is never the work of one individual. It results from collective effort, perseverance, and a shared commitment for the greater good.

As I pass the baton to the next generation of leaders, I hope they will continue challenging the status quo, embracing innovation, and leading with integrity. The journey will not be easy, but it will be worth it. Together, we can shape an energy future that is sustainable, inclusive, and brimming with possibility.





Charting a Course for Sustainability and Diversity in Energy

Marina Md Taib

Senior Vice President,
Corporate Strategy, PETRONAS

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To capitalise on the ever evolving trends in the energy sector, women must embrace lifelong learning and develop cross-disciplinary expertise that combines technical skills with strategic thinking. Platforms like PLWN and international energy forums provide opportunities to showcase leadership, foster collaborations, and influence policy decisions.”

Transformative Leadership

With nearly three decades of experience in the energy sector, I have dedicated my career to driving strategic planning, financial leadership, and fostering inclusivity. My journey from a young accountant to my current role as Senior Vice President of Corporate Strategy at PETRONAS has been guided by a desire to contribute meaningfully to an industry undergoing rapid transformation. In my current role, I continue to spearhead PETRONAS' transformation efforts, reflecting the organisation's steadfast commitment to fostering inclusivity and supporting women through initiatives like PETRONAS Leading Women's Network (PLWN) and PETRONITA. These initiatives reinforce our dedication to career progression and diversity, values that are at the core of everything we do.

My educational journey laid the foundation for my professional achievements. I earned a Bachelor's degree



in Accountancy from the University of Exeter, United Kingdom, followed by a Master's degree in Petroleum Business Management from the University of Adelaide, Australia. I then completed the Advanced Management Programme at Harvard Business School in 2018 and Yale School of Management's Sustainable Finance and Investment Programme in 2023.

Innovating a Sustainable Future

Throughout my career, I have led transformative projects that support the energy transition and drive resilience. During my tenure as Head of Corporate Strategic Planning, I worked on initiatives to integrate sustainability into PETRONAS' long-term strategies. Aligning our operations with global decarbonisation goals has positioned Malaysia to navigate and thrive in the global energy transition journey, while ensuring energy security.

The emergence of cleaner technologies and digital solutions excites me as they open doors for greater efficiency and sustainability. I take pride in overseeing PETRONAS' energy transition journey and portfolio transformation, which leverages innovation to maintain relevance in a changing world.

Breaking Barriers and Empowering Women

As a woman in a traditionally male-dominated industry,

overcoming unconscious biases and societal expectations has been both a challenge and a motivator. Tackling these barriers requires systemic changes, and I am proud to see PETRONAS leading the way with merit-based policies and initiatives such as the Conscious Inclusion Programme, which exemplifies our commitment to fostering equity and addressing systemic barriers.

In my role as Chair of the PLWN, I have witnessed firsthand how mentorship and inclusive policies empower women to excel. Initiatives like PLWN, alongside collaborations with MyWIE, equip women to thrive in leadership roles, fostering a culture where diversity drives innovation and adaptability. I am passionate about championing these efforts, as they not only empower women to make a significant impact but also reinforce PETRONAS' dedication to diversity and inclusion as integral parts of our merit-based organisational approach.

Opportunities for Women in the Evolving Energy Sector

The global energy transition presents unprecedented opportunities for women to lead and innovate. With the rise of cleaner energy solutions, decarbonisation technologies, and digitalisation, a diverse set of skills and perspectives is essential. At PETRONAS, we actively foster these opportunities through education and career progression initiatives, ensuring that women are equipped to lead in these transformative areas.

PETRONAS is a strong advocate of diversity and inclusion,

empowering women to excel in various roles across the organisation and to contribute meaningfully to the energy landscape. These platforms empower women to overcome challenges, excel in their roles, and contribute meaningfully to the energy industry. By focusing on mentoring, collaboration, and skill-building, we prepare women to tackle the challenges of the future and make a lasting impact in shaping the energy transition.

Driving the Energy Transition with Collaboration and Vision

The future of energy depends on collective action and inclusive leadership. Women must seize the opportunity to shape this future by driving innovation, leading transformational projects, and advocating for inclusivity at every level.

For me, leadership is about creating an environment where every voice matters, every idea is valued, and every challenge is met with determination and purpose. As I look to the future, I am inspired by the potential for women to leave a lasting impact on the energy industry and the world.





Beyond Boundaries: Redefining Leadership in a Transforming Energy Landscape

Rashidah Alias

Vice President,
Group Procurement, PETRONAS

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I believe in continuously upskilling to remain relevant, particularly in areas like carbon reduction, renewable energy, and sustainable resource management. Observing and learning from leaders has also been invaluable. I've been fortunate to work with inspiring individuals at PETRONAS who have shaped my growth.”

Transforming Procurement into a Strategic Partner

As the Vice President of Group Procurement at PETRONAS, I lead a dynamic team dedicated to transforming procurement into a strategic solutions partner. My role is about more than sourcing and supply, it's about creating commercial value and delivering with agility while ensuring PETRONAS upholds its responsibilities as Malaysia's national oil company. I take pride in fostering resilience within the OGSE vendor ecosystem, particularly uplifting local vendors and those from producing states to support a thriving industry.

From Australia to Harvard: Building a Strong Educational Foundation

I graduated from the University of New South Wales, Australia, with a Bachelor of Commerce in Accounting. As a Fellow of the Chartered Accountants Australia and New Zealand as well as a member of the Malaysia Institute of Accountants, my career has been grounded in strong professional credentials. I also had the privilege of attending the Advanced Management Programme at Harvard Business School, an experience that deepened my understanding of leadership and strategy.



A Versatile and Strategic Career Path

I began my journey in 1994 at Arthur Andersen, where I gained invaluable experience in audit and advisory assignments. Since joining PETRONAS in 1998, I have embraced various senior management roles, from corporate planning, finance, accounts and treasury, as well as risk management. My tenure as Chief Financial Officer at PETRONAS Chemicals Group Berhad (PCG) was particularly fulfilling, as I had the opportunity to drive strategic financial decisions. Today, in Group Procurement, I focus on creating a robust procurement ecosystem that aligns with PETRONAS' vision for sustainable growth.

Breaking New Ground: PCG's Acquisition of European-based Specialty Chemicals Company

One of the projects that was particularly meaningful was the acquisition of a European-based specialty chemicals company by PETRONAS Chemicals Group (PCG). This was PCG's first step into the specialty chemicals market via acquisition; and I was entrusted with overseeing the due diligence, negotiations, and talent retention strategies.

Post-merger, I led the integration process during COVID-19 pandemic global lockdown - a challenging period that tested our resilience and adaptability. Through meticulous planning and unwavering focus, we ensured the deal delivered its intended value. This success was made possible by the trust placed in me by PCG's former CEO, a testament to the importance of building trust through consistent results.

I firmly believe that fostering inclusivity and understanding

different cultures through meaningful engagements is essential to ensure that every individual feels valued and empowered to contribute to our shared success.

Embracing Individuality and Purpose

I believe women bring a unique perspective to the energy sector. While the sector is often viewed as male-dominated, I've seen firsthand how women excel when they embrace their individuality and align their strengths with a clear sense of purpose.

Diverse perspectives are powerful – they spark ideas and solutions that might otherwise go unnoticed. As women leaders, we also have the responsibility to mentor and nurture the next generation, ensuring a steady pipeline of talent that will drive the energy sector forward. Diverse perspectives are essential in fostering creativity, collaboration, and inclusive innovation to reshape the energy sector for the better.

Challenges Along the Way: Balancing Cultures and Responsibilities

Reflecting on the PCG's acquisition, one of my greatest challenges was integrating a multicultural workforce from a multinational company. Building mutual understanding and harnessing our diverse strengths were crucial in creating value for all stakeholders. It was through strong teamwork and a winning spirit that we successfully overcame these hurdles and delivered results on schedule. I've always emphasised the importance of leveraging one another's resources to benefit everyone involved. For me, fostering inclusivity and embracing different cultures

through meaningful engagement is perfectly aligned with PETRONAS' commitment to creating equitable opportunities for all.

On a personal level, balancing professional responsibilities with family life has been an ongoing journey. I'm incredibly fortunate to have a supportive family and an understanding husband who shares equal responsibility in raising our children. This balance has been essential to my success.

The Limitless Sky: Opportunities for Women in Energy

The energy sector is undergoing rapid transformation, with trends like renewable energy, sustainability, and digitalisation creating endless opportunities for women. From project management in solar and wind to leadership in green initiatives, the possibilities are vast.

At PETRONAS, platform like the PETRONAS Leading Women Network (PLWN) are designed to inspire and motivate the women of PETRONAS, helping them nurture their passion and professionalism while consistently delivering high performance with confidence. With increasing awareness around gender diversity, we are fostering an environment where everyone, regardless of gender, can thrive. Through PLWN, women are empowered to embrace their individuality, leverage their unique strengths, and drive innovation. We have witnessed a growing representation of women across all levels of the organisation, contributing significantly to new and emerging projects.

Seizing the Moment: How Women Can Shape the Future of Energy

I believe in continuously upskilling to remain relevant, particularly in areas like carbon reduction, renewable energy, and sustainable resource management. Observing and learning from leaders has also been invaluable. I've been fortunate to work with inspiring individuals at PETRONAS

who have shaped my growth.

Building strong relationships with stakeholders is another crucial element. Engaging regularly, understanding their needs, and fostering trust are foundational in driving innovation.

Lastly, one quote that has always resonated deeply with me comes from Calvin Coolidge:

"Nothing in this world can take the place of persistence. Talent will not; the world is full of unsuccessful people with talent. Genius will not; unrewarded genius is almost a proverb. Education will not; the world is full of educated derelicts. Persistence and determination alone are omnipotent."

These words constantly remind me of the importance of perseverance and determination in overcoming challenges and achieving success. They've become a guiding principle in my journey.

By embracing opportunities, building meaningful relationships, and leading with purpose, I believe women can leave a transformative mark on the energy sector.





Forging New Frontiers in Energy Leadership

Noriani Yati Mohamad

Senior General Manager,
Sarawak Asset, PETRONAS

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The shift towards renewable energy creates roles in engineering, project management, and policy development. Energy efficiency and sustainability initiatives demand expertise in green technologies and energy conservation. The implementation of smart grid technology, which optimises energy supply and demand, offers further avenues for women to contribute their technical and strategic expertise.”

A Pioneer in Energy Development

With nearly three decades of experience, I have had the privilege of shaping transformative projects in Malaysia's energy sector. Among the highlights of my career are leading the unitisation of several Malaysia-Brunei fields, culminating in the signing of the Key Principles Agreement between the two nations in 2018. This achievement not only fostered regional collaboration but also laid the groundwork for future cross-border energy developments.

In 2022, I spearheaded the Sarawak Integrated Sour Gas Evacuation System (SISGES) project. This initiative enabled the monetisation of sour gas fields, ensuring sustained investment growth and energy security in Sarawak. Furthermore, I led the



establishment of PETRONAS's Carbon Capture & Storage (CCS) framework and operating model, paving the way for the company to become a leader in CCS deployment – a critical solution for the global energy transition.

My journey reflects PETRONAS' unwavering commitment to diversity and inclusivity, as I continue to drive impactful projects that embody its merit-based approach to leadership and excellence.

Foundations in Excellence

I hold a Bachelor of Science in Petroleum Engineering from the Colorado School of Mines in the United States, where I honed my technical acumen and cultivated a passion for innovation.

My career began at PETRONAS in 1994 as one of only three female engineers in the Technical Services Department among a predominantly male arena. This early experience instilled in me resilience and a pioneering spirit that have guided me ever since.

Over the years, I have served in various technical and strategic roles at PETRONAS Carigali Sdn. Bhd. (PCSB) including Subsurface Engineering, Well Intervention, and Joint Venture Management. My leadership in PCSB's groundbreaking BIGST project exemplifies my commitment to sustainable energy solutions. Today, as Senior General Manager of the Sarawak Asset, I oversee its strategy and growth, ensuring it continues to thrive in an ever-evolving energy landscape.

Transformative Projects in Energy

The energy sector offers vast opportunities to drive meaningful change, and I have had the honour of

contributing to several transformative initiatives. One project that stands out is the Sarawak Integrated Sour Gas Evacuation System (SISGES). As the lead strategist, I developed a comprehensive plan to monetise sour gas fields, which were previously considered economically unviable. This initiative not only boosted Sarawak's energy industry but also demonstrated how innovative thinking could unlock hidden value while aligning with sustainability goals.

Another career-defining project was the establishment of PETRONAS's CCS framework and operating model. Recognising the urgency of addressing climate change, I led a team that developed the foundation for CCS projects at PETRONAS. This initiative positions Malaysia as a regional leader in carbon capture, enabling the reduction of greenhouse gas emissions while driving investment in sustainable technologies.

These projects exemplify my belief that innovation lies at the intersection of technical expertise, collaboration, and a shared vision for a sustainable future.

Women as Changemakers in Energy

Women leaders bring a unique blend of empathy, collaboration, and inclusivity to the energy sector, qualities that are vital in navigating the complexities of the global energy transition. Our ability to foster diverse perspectives drives innovation, whether in decarbonisation strategies or the adoption of renewable energy.

By nurturing talent and advocating for equitable policies, women ensure that the next generation of energy leaders includes a rich tapestry of voices and ideas. It is essential to inspire and mentor young talent, demonstrating that leadership in energy is not limited by gender.

Overcoming Leadership Challenges

Early in my career, I faced a lack of representation that made it difficult to envision growth as a woman in the technical field. Gender bias, particularly during pregnancy and in managing predominantly male teams, tested my resolve. Balancing a demanding career with raising six children was another significant challenge.

I overcame these hurdles by seeking mentorship, leveraging supportive networks, and maintaining a focus on my long-term goals. These experiences have deeply reinforced my belief in the importance of creating inclusive workplaces that empower women to thrive in leadership roles. I developed a clear understanding of my priorities and ensured I had the right support system in place to achieve them. By building a reliable network of support both at work and at home, I was able to pursue my career aspirations while fulfilling my responsibilities as a mother. These experiences have profoundly shaped my perspective and strengthened my resolve to advocate for greater inclusivity and support for women in technical and leadership roles.

Opportunities in the Energy Sector

The energy sector is undergoing rapid transformation, presenting new opportunities for women. The shift towards renewable energy creates roles in engineering, project management, and policy development. Energy efficiency and sustainability initiatives demand expertise in green technologies and energy conservation. The implementation of smart grid technology, which optimises energy supply and demand, offers further avenues for women to contribute their technical and strategic expertise.

Harnessing Emerging Trends to Drive Innovation

To thrive in this dynamic sector, women must embrace lifelong learning and actively seek opportunities in emerging areas. By leveraging technical and leadership skills, we can contribute to projects that balance economic growth with environmental stewardship.

Collaboration is key. Building networks and advocating for policies that support clean energy adoption can amplify our impact. Women must also champion diversity and inclusion, ensuring that energy solutions reflect the needs of all communities.

The energy sector's future lies in its ability to innovate and adapt. By aligning with these trends, women can lead the charge towards a sustainable and equitable future, proving that innovation knows no gender.

At PETRONAS, we actively support women in seizing these opportunities by fostering a culture that prioritises continuous upskilling and development. By empowering women to remain at the forefront of innovation and sustainable energy practices, we reaffirm our commitment to a merit-based and inclusive organisational environment where talent is recognised, nurtured, and celebrated.





Advancing Innovation and Leadership in Malaysia's Energy Sector

Ilham Sunhaji

Vice President/ Head,
Corporate Strategy & Research,
MPRC, MGA MyWiE Advisory Council,
Women Leadership Foundation (WLF) -
Board of Trustee

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This is our moment. Women must rise, take the lead, and drive sustainable energy practices. To female leaders: advocate for change, influence your boards, and make sustainability the heart of every decision. Together, we can shape a cleaner, more inclusive future for the energy sector.”

Breaking Barriers in Energy Policy and Strategy

With a career covering consulting, corporate strategy, and policy advocacy; I have dedicated my professional journey to driving Malaysia's energy sector towards a sustainable, inclusive future. Currently serving as Vice President and Head of Corporate Strategy and Research at Malaysia Petroleum Resources Corporation (MPRC), I focus on developing strategies for the Oil & Gas Services and Equipment (OGSE) sector, addressing challenges like energy transition and advocating for sustainability.

My early professional years at PEMANDU Associates and Accenture allowed me to specialise in human capital, oil, gas, and energy. Today, I extend my expertise beyond the boardroom, holding Independent Non-Executive Director positions for two Bursa-listed companies. Across all my roles, I aim to align strategy with sustainability, fostering long-term growth for Malaysia's energy ecosystem.

Driving Energy Transformation through Innovative Projects

One of my most rewarding achievements was driving the transition of Malaysia's regulated gas market towards market liberalisation under the Government Transformation Program (GTP). As part of the NKEA Oil, Gas & Energy roadmap,

I spearheaded initiatives that included formulating key recommendations for the Economic Council, chaired by the Prime Minister. These recommendations focused on gas pricing reforms and the liberalisation of Malaysia's gas market through amendments to the Third Party Access (TPA) framework.

The process was both challenging and fascinating, particularly in negotiating and strategising gas pricing and electricity tariffs. These negotiations required close collaboration between ministries, government agencies, and national oil and gas companies to ensure fair, competitive, and sustainable pricing mechanisms.

One significant outcome was the deregulation of gas prices for the non-power sector, which contributed to increased government revenue over time. Additionally, to address past gas supply crises, we strengthened critical infrastructure by establishing regasification terminals in Pengerang and Sungai Udang, Melaka. These facilities enabled the conversion of imported LNG into gas for the power sector, ensuring energy security and resilience.

This experience underscored the importance of well-designed pricing strategies and competitive markets in driving growth, innovation, and sustainability in the energy sector. When structured effectively, these elements form the backbone of a resilient energy ecosystem, securing the nation's energy needs while supporting long-term economic growth.

Progress in the energy sector doesn't happen by chance. It requires bold leadership, clear vision, and strategic alignment among stakeholders. From carbon capture utilisation and storage (CCUS) advocacy to OGSE sector development, I've learned that transformative growth emerges when courageous policies meet determined leadership.

At MPRC, together with my team, I am leading efforts to formulate national sustainability plans, roadmaps, and guidelines for the OGSE industry. This initiative aligns with Malaysia's vision of fostering a new growth sector within the clean energy landscape while addressing critical climate change imperatives. The National OGSE Sustainability Trilogy comprises a plan (NOS-P), a comprehensive roadmap (NOS-R), and a framework guide (NOS-FG) designed to help OGSE players tackle climate action, achieve compliance, and lead in sustainability.

The NOS Framework Guide (NOS-FG) is tailored to every stage of the journey, providing practical pathways for industry players, whether they are just starting or already advanced. Serving as a "climate action GPS," it aligns with policies such as the National Climate Change Policy 2.0 and includes sector-specific guidelines for addressing climate risks. Developed collaboratively with stakeholders like MGTC, MOGSC, and PETRONAS, the Trilogy serves as both a toolkit for partnerships and a guide created by and for the OGSE sector, delivering actionable, real-world solutions for sustainable growth.



Women as Catalysts for Change in Energy

Throughout my career, I have been privileged to champion women as catalysts for change, leveraging leadership roles to advance gender diversity in decision-making and the energy sector. From spearheading the 30% Women in Decision-Making Position Policy under Government Transformation Programme under the Prime Minister's Department to my work with MyWiE and as a Board of Trustee member in the Women Leadership Foundation (WLF), I have sought to create meaningful opportunities for women to lead and innovate.

Under Malaysia's GTP, I am proud to be part of the many initiatives that increased the representation of women in boardrooms from 6% in 2011 to achieving 30% today. This included ensuring GLCs and GLICs appointed women directors, training 700 "board-ready" women, and encouraging public-listed companies to publicly disclose their efforts toward gender diversity. I am humbled that as of 2023, 21% of the top 24 PLCs in the OGSE sector have achieved 30% women representation on their boards, as highlighted in the MPRC OGSE 100 publication.

Through MyWiE, I have had the opportunity to contribute to amplifying women's participation in critical areas within the Oil & Gas and Energy industry. By supporting initiatives that foster mentorship, collaboration, and advocacy, I have worked alongside others to help position women as key contributors to Malaysia's energy transition.

As a trustee of the Women Leadership Foundation, I am honored to play a small part in the collective effort to develop 2,500 women leaders across industries, providing them with the tools and confidence to excel in leadership roles. These experiences have reinforced my belief in the importance of creating spaces where women can lead, innovate, and make lasting impacts.

Diversity is not merely an aspiration; it is a strategic advantage. Women bring unique perspectives and a commitment to long-term, sustainable decision-making that strengthens organisations and industries alike. While I take pride in these efforts, I remain acutely aware that much more work lies ahead.

My commitment is to continue supporting, empowering, and enabling women to lead, innovate, and shape a future that is inclusive, equitable, and sustainable.

Navigating Leadership Challenges in Energy

The energy sector presents unique challenges, particularly for women in leadership. Early in my career, I faced unconscious biases and stereotypes in a male-dominated industry. As I progressed, the challenges evolved – from proving my worth to defining my value and influence.

Faith has been a guiding force in my journey, teaching me that challenges are growth opportunities. Leadership is not just about overcoming barriers but about creating pathways for others to succeed. By embracing resilience, adaptability, and inclusivity, I've navigated these challenges and encouraged others to step forward confidently.

Emerging Opportunities in the Energy Sector

The energy transition is unlocking a wealth of new opportunities for women to lead, innovate, and make a lasting impact. In Malaysia, the National OGSE Industry Blueprint 2021-2030, facilitated by MPRC, is driving the Oil & Gas Services and Equipment (OGSE) sector—comprising around 4,000 companies—to expand beyond traditional services into transformative areas such as hydrogen energy, green mobility, and waste-to-energy initiatives. These fields present unparalleled opportunities for women to take the lead in shaping Malaysia's energy future.

By 2030, global energy spending is projected to reach USD 3.6 trillion, with 44% of investments directed toward low-carbon energy initiatives (Rystad Energy, 2024). In Southeast Asia, annual energy spending is expected to plateau around USD 115 billion, with a growing emphasis on renewables. Malaysia mirrors this trend, with total energy spending expected to reach USD 19 billion annually by 2030 (Rystad Energy, 2024). These investments signal immense growth in clean energy sectors where women can play pivotal roles in driving innovation.



However, challenges persist. Talent acquisition remains a pressing issue in Malaysia, particularly the shortage of skilled engineers. Addressing this requires stronger collaboration between government, industry, and education sectors, as well as intensified diversity and inclusion efforts to attract and retain talent from all backgrounds. Women, as underrepresented stakeholders, can help bridge this gap, bringing fresh perspectives and critical skills to the table.

The rise of sustainability-focused policies further accelerates this transformation. Women have opportunities to pioneer advancements in cutting-edge areas such as small-scale nuclear technology, sustainable aviation fuel production, and circular economy initiatives. By building expertise in these emerging fields, women can contribute significantly to innovation, growth, and environmental sustainability.

The energy transition isn't just about technology or investments—it's about leadership. Women are uniquely positioned to be the catalysts for change in this evolving landscape, shaping a cleaner, more sustainable, and inclusive future for the energy sector.

Capitalising on Trends to Lead Energy Innovation

As Malaysia strives to improve its Energy Trilemma Index and achieve its ambitious Ekonomi Madani goals, the need for inclusive, forward-thinking leadership has never been greater. Women have a critical role to play in this transformation.

Beyond political and corporate leadership, women can shape the energy sector as engineers, entrepreneurs, and policymakers. Emerging technologies such as renewable energy systems, hydrogen solutions, and AI-driven energy management offer fertile ground for innovation. Women must seize these opportunities, challenging norms and breaking barriers to build a dynamic, sustainable energy future.

This is a call to action. To every woman aspiring to make a difference: step into the spotlight, influence decisions, and lead with purpose. Together, we can redefine the future of energy – for Malaysia and the world.



Pioneering Sustainability in Atomic Energy

Hajah Noraishah Binti Pungut

Director General,
Department of Atomic Energy Malaysia

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Women’s involvement in these areas — spanning engineering, research, and policy development — ensures that the energy transition is both inclusive and effective. By embracing these opportunities, women can play a pivotal role in redefining the future of energy systems.”

My journey in atomic energy began in 1991 with the Department of Atomic Energy Malaysia (Atom Malaysia) under the Ministry of Science, Technology, and Innovation (MOSTI).

Over the years, this path has been defined by key milestones, including my appointment as the first female Director General of Atom Malaysia in 2023. This is a particularly significant achievement for both my career and the representation of women in the field.

As the Executive Secretary of Jabatan Tenaga Atom Malaysia (AELB), I have led initiatives to align Malaysia’s nuclear safety regulations with international standards. These efforts have centred on fostering innovation while ensuring compliance with robust safety and sustainability frameworks.

Innovative Projects Driving Progress

Throughout my career, I have had the privilege of leading projects that bridge innovation with environmental responsibility.

One of the most groundbreaking initiatives I have been involved in is the extraction of thorium from lanthanide concentrates (LC) and Water Leached Purification (WLP) residues. This collaborative effort between Malaysian



universities and Atom Malaysia aims to optimise thorium extraction processes while meeting environmental, social, and governance (ESG) standards.

Another landmark project has been the decommissioning of a monatise cracking plant and its associated Long-Term Storage Facility (LTSF) in Perak. This two-phase project involved site remediation, waste management, and the safe disposal of radioactive materials. It exemplifies how meticulous planning and collaboration can address legacy challenges while preparing for future advancements in nuclear energy.

Advancing Inclusivity in Energy Leadership

Women bring invaluable perspectives to the energy sector, with a focus on sustainability, inclusivity, and innovative problem-solving. As a mentor and advocate for gender diversity, I have witnessed how empowering women can transform the field.

Through mentorship programmes and advocacy, I aim to inspire women to pursue careers in energy and leadership. By championing policies that promote equal opportunities, we can ensure diverse voices shape a sustainable and equitable energy future.

Overcoming Challenges with Resilience

Leadership in the energy sector requires balancing technical complexity with public trust. One of the most significant challenges I have faced is addressing misconceptions about nuclear energy and managing stakeholder concerns.

Transparent communication and inclusive engagement have been key to building trust. Community consultations, environmental assessments, and partnerships with local stakeholders ensure that energy projects are not only understood but also supported.

As a woman in a leadership role, navigating gender bias has demanded resilience and determination. By focusing on continuous learning, building supportive networks, and fostering collaboration, I have overcome these barriers while encouraging others to do the same.

Opportunities in a Transforming Energy Landscape

The energy sector is undergoing rapid transformation, offering unparalleled opportunities for women to lead and innovate. Renewable energy technologies, digitalisation, and advancements in nuclear energy, such as small modular

reactors (SMRs), provide platforms for leadership and innovation.

Women's involvement in these areas – spanning engineering, research, and policy development – ensures that the energy transition are both inclusive and effective. By embracing these opportunities, women can play a pivotal role in redefining the future of energy systems.

Empowering Women to Lead the Way

To capitalise on emerging trends, women must prioritise education and training in areas such as renewable energy, nuclear technologies, and AI-driven energy management. Networking, mentorship, and advocacy for inclusive policies are essential to advancing careers and driving innovation.

By combining technical expertise, strategic leadership, and a commitment to sustainability, women can shape a resilient and equitable energy future—one that benefits both society and the planet.





Transforming the Future of Energy Through Innovation and Empowerment

Elina Jani

Chief Executive Officer,
GreenTech Ideaslab

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Women bring a unique perspective to this field, one that disrupts the status quo and fosters creative, inclusive solutions. By integrating women into decision-making processes, we're able to address challenges with a fresh lens and come up with policies and innovations that are more equitable and effective.”

Looking back on my journey in the energy sector, I see a story of challenges and triumphs, of finding innovative solutions and building bridges between tradition and progress.

My work has always been about aligning innovation with practicality, creating sustainable systems that benefit both the people and the planet.

Being part of Malaysia's transition toward a greener future has been deeply rewarding, and I'm proud of the projects I've helped to shape.

Planting the Seed of Innovation: Integrating Agriculture and Energy

At MGTC, I've had the privilege of working on initiatives that merge green technology, climate change mitigation, and sustainable development.

One project that stands out is our work in supporting organisations to go into agrivoltaics. This concept, which combines agriculture with renewable energy, optimises land use by integrating large-scale solar projects with agricultural activities.



We've introduced herbal farming, bee farming, livestock grazing, and even aquaculture alongside solar installations. Floating solar projects, for example, can coexist with fish farming, creating multiple layers of productivity on the same land or water.

These projects are about more than just renewable energy. They honour Malaysia's agricultural roots while paving the way for sustainable energy systems. By coupling large scale solar projects with agriculture activities, it also provides a sense of community engagement, providing new jobs to the community surrounding a large scale project, thus further contributing to Malaysia's GDP. This promotes new investments, new job creations and more revenues to the country.

Agriculture has been a cornerstone of our economy for decades, and by coupling it with renewable energy, we're ensuring that progress doesn't come at the expense of tradition. Instead, it enhances it.

Another venture I'm particularly proud of is our initiative to promote livestock biogas projects. This programme addresses a long standing issue: the pollution caused by livestock waste.

Rivers like Sungai Selangor have suffered from contamination due to untreated farm discharge, affecting ecosystems and communities. Through biogas technology, project promoters have created a closed-loop system that transforms livestock waste into valuable resources.

The solid waste is repurposed into fertilizer for export, while the liquid waste is converted into biogas to power farms. This approach reduces pollution, mitigates disease risks, and promotes sustainability, showcasing the potential of circular economy principles.

These projects remind me why I love this field. They're about solving real problems with innovative solutions, and they show how technology can work hand in hand with the environment to create lasting benefits.

The Rise of Women in the Driver's Seat of the Energy Sector

The energy sector has always been male-dominated, but that doesn't mean women haven't been driving change behind the scenes. Women bring a unique perspective to this field, one that disrupts the status quo and fosters creative, inclusive solutions. By integrating women into decision-making processes, we're able to address challenges with a fresh lens and come up with policies and innovations that are more equitable and effective.

Education plays a critical role in this transformation. I've seen how introducing energy technologies into STEM curricula has encouraged more girls to consider careers in this field. This wasn't always the case. For years, energy was seen as a space reserved for men, particularly in engineering and policymaking. But today, more young women are entering this space, armed with the knowledge and confidence to contribute meaningfully.

I believe that applying a gender lens to policy making is crucial. When women have a say in shaping policies, the outcomes are more balanced and inclusive. Sectors like energy and transport have benefited immensely from policies crafted with women's input, creating more opportunities for women to thrive and contribute at all levels.

Breaking Barriers: Women Take the Helm in the Global Energy Leadership

Having worked in government agencies and the green technology sector for over two decades, I've seen my share of challenges. Gender disparity is real, but I've never let it define my path. Instead of focusing on the barriers, I've always asked myself: what can I contribute to society? What can I bring to the table?

In male-dominated fields like industrial biotechnology and green technology, I've learned that collaboration is key. Leadership isn't just about being the loudest voice in the room—it's about fostering partnerships, building trust, and ensuring that no one is left behind. Transitioning from fossil fuels to renewable energy is as much a cultural shift as it is a technical one. It requires buy-in from a wide range of stakeholders, and that's where leadership becomes an art.

Soft skills like negotiation, empathy, and inclusivity have been just as important as technical expertise in my journey. These skills have allowed me to navigate complex ecosystems, bring people together, and ensure that projects move forward in a way that benefits everyone involved.

Exciting Opportunities in Renewable Energy for Women

The renewable energy sector is a space where women can truly thrive. Compared to traditional energy sectors, where women make up only about 22% of the workforce, renewables are far more inclusive, with women representing around 32%. This shift is encouraging, and it reflects the sector's openness to fresh perspectives and diverse voices.

Technological advancements like solar panels, energy storage, and electric vehicles have opened up new opportunities for innovation. Universities are now producing more female graduates in STEM fields, creating a pipeline of talent ready to tackle the challenges of this industry.

Leadership programmes, mentorship initiatives, and inclusive hiring practices are also making a difference. These aren't just token efforts—they're meaningful steps toward creating an industry that values and supports women. By fostering these changes, we're building a sector that's not only sustainable but also equitable.

Capitalising on Trends and Driving Innovation

Malaysia's 12th Malaysia Plan outlines clear strategies for closing gender gaps and promoting women in decision-making roles. These efforts are critical because gender equality isn't just a moral imperative—it's an economic one. Countries that prioritise gender equality consistently

outperform others in areas like innovation, high-tech exports, and economic growth.

By giving women access to leadership roles and creating policies that support their contributions, we're unlocking untapped potential. Leaving women out of the equation isn't just unfair—it's a missed opportunity for innovation and progress. Do remember: if women are left out of key decisions, it is like putting your back against half the population of the country, therefore; this is key in gender equality.

Looking Ahead: Building an Inclusive and Sustainable Future

As I look to the future, my vision is clear: an energy sector where diversity isn't just encouraged—it's celebrated. A sector where women and men work together, complementing each other's strengths to create solutions that are both effective and inclusive.

For women entering this field, my advice is simple: focus on your strengths and find your niche. This isn't about competing with men—it's about contributing to a shared mission. By working together, we can create a future that's not just green but thriving.

The energy sector is evolving rapidly, and women are at the heart of that evolution. Together, we have the power to reshape industries, redefine possibilities, and build a world where everyone has a seat at the table.





Forging the Path: My Journey in Sustainability and Energy Transition

Dr Wei-nee Chen

Head, Carbon Market,
Bursa Malaysia Berhad

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In my doctoral thesis on the personal branding of women in top management, I identified three dimensions critical to career advancement: outer packaging (appearance, conduct, and communication), capital resources (human, social, and cultural capital), and personal characteristics (traits like resilience, determination, and humility). These dimensions, when nurtured, can be transformative for women aspiring to lead in emerging sectors.”

From IT to Energy: A Purposeful Pivot

My journey into the energy sector was anything but conventional. I began my career in IT, spending 18.5 years honing my skills across various sectors, including government health computing services, banking, insurance, and even meat processing.

However, in 1996, my family made a significant move back to Malaysia. On the 13-hour flight home, after settling my two young daughters to sleep, I contemplated the future of my career. During that quiet moment, I resolved to channel my efforts towards contributing to a better future for our children and the next generation.



I wanted my work to have a broader purpose, leading me to pursue a general MBA. This pivotal decision helped me transition from IT to environmental sustainability.

Since then, I have dedicated nearly 19 years to serving Malaysia's energy transition and carbon market initiatives. It was a challenging transition. I faced many obstacles along the way, from overcoming the perception that my IT background was irrelevant to sustainability, to learning the intricacies of a new industry.

But I persevered, and I am grateful to the Malaysian government for providing opportunities where gender, race, and religion were never barriers. These experiences prove that it is never too late to pivot, provided purpose and passion guide your path.

Key lessons I have learned during this journey include the importance of perseverance and the myth that technical expertise is a prerequisite for working in specialised sectors like energy. While hard work is essential, passion transforms learning into a fulfilling pursuit rather than a chore.

Championing Innovation in Malaysia's Energy Sector

My work in the energy sector has primarily focused on developing sustainable ecosystems to support the nation's energy transition. I have been fortunate to contribute to several national initiatives, including the implementation of the feed-in tariff (FIT), the introduction of renewable energy certificates (RECs), and the piloting of peer-to-peer (P2P) energy trading.

However, the passing of the Renewable Energy Bill 2010 by Parliament in April 2011 remained a highlight of my involvement in government energy transition initiatives. Securing support for the 1% surcharge on electricity

tariffs to fund the RE FIT programme was politically challenging. It required extensive stakeholder engagement, including sessions with industry players, media, political representatives, NGOs, and international stakeholders. Initially, it was proposed to gradually increase the surcharge to 2% and 3% as part of a more ambitious renewable energy target. However, the surcharge was only raised to 1.6% in 2014 (with extension to cover Sabah) and the surcharge has remained at that level ever since.

This experience highlighted the complexities of introducing a polluter-pays principle in policy making. It also underscored the importance of choosing the right compliance mechanism when implementing carbon pricing instruments (CPIs). Any misstep in this area could consume significant political capital, making it difficult to sustain long-term energy transition reforms.

Trailblazing in Carbon Markets

In August 2022, I joined Bursa Malaysia as the Head of the Carbon Market, furthering my passion for energy transition. To this end, we have implemented initiatives such as establishing the world's first Shariah-compliant carbon exchange, the Bursa Carbon Exchange (BCX), and being the first RECs trading platform in Malaysia to secure accreditation under the I-TRACK Standard Foundation. These efforts marked significant milestones in Malaysia's commitment to sustainability.

Carbon markets represent the next frontier in sustainability, blending nature-based and technology-driven solutions. I found immense satisfaction in engaging with diverse stakeholders, from international organisations like the World Bank and the International Emissions Trading Association (IETA) to local institutions. Collaborations strengthen Malaysia's position in global carbon trading and provide a pathway for achieving meaningful climate goals.

Women Redefining Energy Leadership

Throughout my career, I have witnessed a growing acceptance of women in leadership roles within the energy sector. While there is still work to be done, initiatives encouraging at least 30% representation of women in senior management and board positions are steps in the right direction. It is encouraging to see that some corporations now favour hiring women when equally qualified candidates of both genders are available.

However, I firmly believe that leadership is not an entitlement but a responsibility. We must continuously bring value to the organisations we serve. By focusing on skills, knowledge, and strategic contributions, we can ensure that our presence in leadership positions is earned and impactful.

Overcoming Challenges in Ecosystem Development

Developing nascent ecosystems has been a recurring theme in my career, whether it is renewable energy or carbon markets. The challenges often revolve around a lack of awareness among stakeholders, including investors, financial institutions, and policymakers. Addressing these gaps requires roadshows, media engagements, and professional development programmes to build capacity and understanding.

Financial barriers also play a significant role, especially in the early stages. Incentives such as tax breaks or grants can help mitigate these obstacles, as evidenced by Malaysia's Green Technology Financing Scheme (GTFS) and other initiatives announced in recent budgets. Close collaborations with government ministries and agencies have been crucial in shaping ambitious and practical policies.

Emerging Opportunities for Women in Energy

The energy sector is currently undergoing a transformative phase, with emerging trends such as green hydrogen, carbon capture and storage (CCUS), and increased electrification through electric vehicles (EVs). These trends, along with market enablers like carbon markets and cross-border energy trading, present exciting opportunities for women in the field.

For women, the key to success in the energy sector (or any sector, for that matter) is aligning career aspirations with these transformative trends. Whether you prefer working in structured environments or thrive in uncharted territories, there are opportunities to contribute to building ecosystems from the ground up. Expanding into adjacent industries, such as forestry, which plays a vital role in carbon sequestration, can also open new avenues for growth.

Capitalising on Trends: Insights from My Research

In my doctoral thesis on the personal branding of women in top management, I identified three dimensions critical to career advancement: outer packaging (appearance, conduct, and communication), capital resources (human, social, and cultural capital), and personal characteristics (traits like resilience, determination, and humility). These dimensions, when nurtured, can be transformative for women aspiring to lead in emerging sectors.

For women aspiring to lead in emerging sectors, focusing on outer packaging can help build initial credibility at the start of a career. Over time, developing capital resources and refining personal characteristics become essential for sustaining and expanding influence.

Maintaining consistency, authenticity, and relevance are equally important for strategic personal brand management. By embracing these principles, women can position themselves as leaders and innovators in the energy sector.

Looking Ahead: Shaping the Future

As I reflect on my career, I am reminded of the importance of gratitude. Each challenge represents an opportunity to grow, and each success is a stepping stone for the next endeavour. Whether it is mentoring the next generation or contributing to policy reforms, I am committed to leaving a lasting impact on Malaysia's energy landscape.

To women aspiring to join this journey: embrace your passion, stay curious, and remember that the path may not always be clear, but the possibilities are endless. Together, we can forge a sustainable future for generations to come.





Collaboration as the Catalyst for Progress

Siti Hurrairah Sulaiman

Country Chair,
Shell Malaysia

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I firmly believe that women bring a balance of emotional intelligence and resilience essential for navigating the complexities of the energy sector. The energy transition requires innovative solutions, and women’s diverse perspectives can challenge conventional thinking, fostering collaboration and creativity.”

Shaping Malaysia’s Energy Future: My Journey with Shell.

I took on the role of Country Chair of Shell Malaysia at the start of 2023, a position that allows me to oversee all Shell businesses in the country alongside my responsibilities as Senior Vice President for Shell Malaysia’s Upstream division. This dual role offers me a unique perspective on shaping Malaysia’s energy sector amidst the rapidly evolving global energy landscape.

Hailing from Kuching, Sarawak; my journey with Shell began as a Shell scholar. After graduating with first-class honours in Mechanical Engineering from Imperial College London, I joined Shell Malaysia in 1994 as an Operations Engineer. Over the years, my career has encompassed a diverse range of roles, both globally and locally, spanning operations, projects, commercial, strategy and asset management across upstream, downstream and integrated gas sectors.

Driving Innovation and Sustainability in Energy

Innovation has been the cornerstone of my career. Two recent Malaysian projects, Timi and Rosmari-Marjoram exemplify how we are advancing the energy transition while ensuring operational excellence.



Timi Gas Development marks a significant milestone as Malaysia's first hybrid solar- and wind-powered offshore facility. By integrating renewable energy sources, Timi reduces emissions while maintaining energy reliability—a blueprint for sustainable exploration and production.

The Rosmari-Marjoram Gas Project, set to commence in 2026, represents another leap forward. Powered by renewable energy, it provides cleaner energy solutions and demonstrates our commitment to reducing our carbon footprint.

Beyond these projects, I am proud of our work on Carbon Capture and Storage (CCS). By positioning Malaysia as a regional carbon storage hub, CCS has the potential to create a new economic sector, attract foreign investment, and generate highly skilled jobs, contributing to a sustainable future for the nation.

Reinventing Leadership Through Diversity and Inclusion

In 2015, I took on a global role in London, where I was tasked with implementing a remote operating model for Shell's Trading and Supply business. Initially sceptical, I soon realised that diversity – not just in backgrounds but in ways of thinking – could challenge traditional norms and yield remarkable results.

This transformation reinforced my belief in the power of Diversity, Equity, and Inclusion (DEI) as strategic enablers. By empowering diverse teams and leveraging their unique perspectives; we standardised processes, enhanced digitalisation, and achieved operational efficiency; positioning Shell as a leader in adaptability and innovation.

Empowering Women for a Sustainable Future

I firmly believe that women bring a balance of emotional intelligence and resilience essential for navigating the complexities of the energy sector. The energy transition requires innovative solutions, and women's diverse perspectives can challenge conventional thinking, fostering collaboration and creativity.

For women to drive change, it's crucial to embrace a learner's mindset, challenge self-doubt, and see mistakes as opportunities for growth. Leadership isn't just about representation; it's about influencing strategies and making meaningful contributions that shape the future.

Opportunities in a Changing Energy Landscape

The energy sector's transformation, fuelled by AI, automation, and digitalisation, offers immense opportunities for women

to lead. These trends require a digitally savvy workforce enriched by diverse perspectives, creating avenues for innovation and transformation.

Women must leverage these trends to step into leadership roles across technical, operational, and strategic domains. By investing in continuous learning, embracing adaptability, and driving collaborative solutions, we can shape a more inclusive and sustainable energy future.

Reflections on Leadership

Leadership in the energy sector comes with its challenges, particularly embedding true inclusion across organisations. DEI is not just a target – it's about creating cultures where everyone feels empowered to contribute. By fostering inclusive decision-making and ensuring diverse perspectives are valued, we can transform both our workforce and our business outcomes.

For me, success lies in leading with purpose. Whether it's steering Malaysia's energy transition or mentoring the next generation of leaders, I remain committed to championing innovation that balances the energy needs of today with the imperatives of tomorrow. Together, we can build a brighter, more sustainable future for the energy sector.





Redefining the Blueprint: Women Shaping the Energy Industry

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Building strong networks and seeking mentorship can also open doors to new opportunities. Collaboration with diverse teams fosters holistic solutions, and participating in industry events amplifies our impact. By advocating for inclusivity and embracing entrepreneurship, women can lead transformative change and leave a lasting legacy in the energy sector.”

Breaking Barriers, Building Futures in Energy

I've spent nearly three decades in upstream oil and gas, navigating complex projects and paving the way for sustainable energy solutions.

As General Manager for Malaysia Projects at Shell Upstream, I lead a team dedicated to the safe, efficient delivery of projects that redefine industry standards.

Along the way, I've broken barriers as Shell Malaysia's first female fabrication company site representative and the first female offshore construction lead, managing over 450 crew members across barges and support vessels.

In addition to my professional responsibilities, I proudly serve as President of the Shell Women Action Network (SWAN), championing women's empowerment and fostering a culture of inclusivity within Shell Malaysia.

I earned a Bachelor of Science in Chemical Engineering

Norizah Othman

General Manager of Malaysia Projects,
Shell Malaysia



from the University of Kentucky and pursued a Diploma in Project Management from the University of Liverpool mid-career, underscoring my commitment to lifelong learning and professional growth.

Redefining Possibilities: Lesson in Subsea and Shallow Water Development

One of my first major projects at Shell was the Serai Field Subsea development—a pioneering initiative that laid the groundwork for Malaysia's subsea capabilities. Partnering with international contractors, we introduced innovative technologies like the suction pile concept, reducing environmental impact while boosting efficiency. This project not only showcased Malaysia's ability to adopt cutting-edge technology but also set the stage for local contractors to develop and grow.

The experience taught me how innovation and collaboration can transform not just projects but entire industries. It was a lesson I carried forward into every challenge I've faced since. A Blueprint for Sustainability: Transforming Shallow Water Platforms

Malaysia's offshore platforms, many built decades ago, posed a unique challenge: how to economically access smaller reserves while reducing environmental impact. This led to a transformation journey within Shell, culminating in the Timi Project, our first solar-and-wind-powered shallow water platform.

By rethinking design and integrating renewable energy, we developed lighter, more efficient platforms with reduced carbon footprints. Timi's hybrid power system is now a benchmark for sustainable platform development, offering a replicable model for regions with similar climates. These platforms are proof that renewables can seamlessly integrate with traditional energy systems, driving both efficiency and sustainability.

Powering Progress: The Rosmari-Marjoram Gas Project

The Rosmari-Marjoram Gas Project exemplifies how innovation and sustainability can work hand in hand. By harnessing renewable energy to power both offshore and onshore facilities, this initiative will support Malaysia's energy transition goals when production begins in 2026.

Equipped with advanced automation and remote monitoring, the project enhances efficiency and safety while minimising human exposure to hazardous environments. Rosmari-Marjoram is more than just a project – it's a commitment to responsible energy development and a blueprint for sustainable growth in the industry.

Women Leading the Charge in Energy

Women have a unique ability to drive transformation in the energy sector. Our diverse perspectives and collaborative approaches foster innovation, making us essential contributors to the industry's evolution. By championing inclusivity and focusing on community engagement, women leaders are shaping a more sustainable and equitable energy future.

In my experience, empathy and creativity are powerful tools for addressing challenges, whether it's in decision-making, team-building, or navigating the complexities of the energy transition. As more women step into leadership roles, they bring fresh ideas that enrich the sector's ability to adapt and thrive.

Navigating Challenges: Lessons from the Field

Working in a traditionally male-dominated sector, I've faced my share of challenges – from gender biases to balancing professional and personal responsibilities. Early in my career, it was rare to see women in technical leadership roles, and I often felt the need to prove my capabilities.



I overcame these obstacles by building strong support networks and seeking mentorship. Advocating for inclusive policies and creating alliances with like-minded colleagues has also been instrumental. These experiences taught me the importance of persistence and the value of creating spaces where everyone's contributions are recognised and respected.

New Frontiers: Opportunities for Women in Energy

The energy sector is brimming with opportunities for women, driven by trends like renewable energy, digitalisation, and

sustainability. The rise of solar, wind, and battery storage technologies is opening doors in engineering, research, and project management, while advancements in digitalisation are creating exciting roles in data analytics and smart technology.

Sustainability efforts, meanwhile, are reshaping the sector, calling for expertise in environmental science and corporate responsibility. These trends are breaking down barriers, encouraging women to take on leadership roles and contribute to a more diverse, innovative energy landscape.

Capitalising on Change: Building a Legacy in Energy

To make the most of emerging opportunities, I believe women must embrace lifelong learning and adaptability. Staying ahead of industry trends, from renewable technologies to sustainability practices, is essential for driving innovation.

Building strong networks and seeking mentorship can also open doors to new opportunities. Collaboration with diverse teams fosters holistic solutions, and participating in industry events amplifies our impact. By advocating for inclusivity and embracing entrepreneurship, women can lead transformative change and leave a lasting legacy in the energy sector.

The energy sector is undergoing profound transformation, and diverse leadership is critical to its success. As women, we bring unique skills and perspectives that can drive innovation and create a more sustainable future. By embracing challenges, building strong networks, and leading with purpose, we can shape the industry into one that reflects the values and aspirations of the next generation.





Shaping the Energy Sector: My Journey as a Leader, Innovator, and Changemaker.

Zalina Jamaluddin

Head, Decarbonisation,
Hibiscus Petroleum Berhad.

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Women can capitalise on emerging trends by deepening their sustainability and climate science expertise while leveraging their strengths in community-building and creative problem-solving. Building networks within the sector can foster support and shared growth, enabling women to lead the charge in driving interdisciplinary solutions for a sustainable future.”

The Journey in Energy and Education : How It All Started

Reflecting back, my career path was shaped by curiosity, collaboration, and an enduring drive to make a difference.

Starting as one of the founding management team at Malaysia Petroleum Resources Corporation (MPRC), I was driven by the vision to position Malaysia as a global oil and gas hub.

It was a time of immense growth and learning – building international partnerships and launching initiatives to strengthen the local talent pool. I was proud to be part of the team, knowing that we were laying the foundation for Malaysia’s energy sector to flourish.

My time at the Asia School of Business (ASB) was another defining chapter. I had the privilege of playing a pivotal role in launching the first cohort of the MBA programme, establishing cutting-edge research centres, and securing USD 45 million in funding. These experiences reinforced my belief in the power of education to transform industries



and individuals alike. It was exhilarating to merge academic insights with practical industry needs, creating opportunities for future leaders to thrive.

Pioneering Decarbonisation in Energy

Transitioning to Hibiscus Petroleum marked a new phase in my career, one where the stakes felt even higher as the world began to take seriously the realities of climate change.

Leading the company's decarbonisation efforts, I established the roadmap for achieving a 50% reduction in emissions by 2030. It was a bold target, but it was necessary for the company's sustainable future. To-date, we managed to reduce emissions by 20% from 2020. Despite a rough start when we first formed the decarbonisation working group in early 2024, I am glad that we pushed through and progressed the work significantly this year. Managing pushbacks and aligning different stakeholders require clear messaging and consistency to build the momentum.

One of the decarbonisation projects that stood out was a phased membrane upgrade - a project that was driven by our Operations team. What is unique about this project is the way we approached it through a series of trials, and process simulations to test the different variations, instead of just accepting the conventional configurations proposed by the service provider. With this upgrade, we managed to capture a significant amount of methane from the vent, and reduced the emissions while monetising the methane through our sales gas.

Bringing the World to Malaysia: OTC Asia

Innovation, however, isn't confined to technical projects, it can also take the form of transformative events.

One of the milestones I'm most proud of was leading efforts to bring the Offshore Technology Conference (OTC) Asia to

Malaysia in 2013. Partnering with the Society of Petroleum Engineers (SPE) and PETRONAS, we created a platform for knowledge-sharing and collaboration among energy leaders and innovators.

Bringing together more than 10,000 international delegates, the event showcased Malaysia as a leading regional hub for energy innovations. The success of OTC Asia was not just about the event itself but about its long-term impact on the industry, whereby we foster Research and Development (R&D) partnerships, encourage innovation, and boost economic contributions.

Fast forward to today, I am honoured to serve as Vice Chair for the Decarbonisation and New Energy Programme at the OTC Asia 2024. This new programme focused on new solutions such as the wave technology and carbon capture storage, aligning with the industry's shift towards sustainability.

Breaking Barriers Through Collaboration

One of the most fulfilling aspects of my career has been challenging conventional mindsets and fostering collaboration across boundaries.

During my tenure at Talisman Energy, I led several cross-collaboration projects in Sabah with our joint venture partner. One of the initiatives was to share reservoir data, a practice unheard of before 2015. By integrating data from multiple reservoirs, we gained a comprehensive understanding of the regional geological structure, improving decision-making and resource management.

This project enhanced efficiency and set a precedent for future collaborations, emphasising the value of openness and shared objectives. It was a powerful reminder that innovation is not just about technology; it is about breaking down silos and working together to achieve something more significant.



The Human Side of Leadership

Leadership in the energy sector comes with its own set of challenges. Balancing the pressure to deliver results while ensuring the well-being of my team has always been a delicate act.

Early in my career, I learnt the importance of being "firm and kind" – a principle inspired by my mentor, Haji Zainal Abidin Jalil. His advice to be "hard on issues but soft on people" has stayed with me, guiding how I approach leadership even in the most challenging times.

Clear communication is another cornerstone of trust-building. Leaders must provide transparent and consistent messages. If we don't, others will fill the void with

assumptions and misinformation. Equally important is self-care – what I often call "putting the mask on yourself first."

The pressures of leadership can be intense, and I've found grounding practices like qigong, somatic yoga, and meditation invaluable in managing stress. These routines have been my anchor, whether navigating a COVID outbreak offshore or supporting my husband during his cancer treatments.

Women at the Forefront of Energy Innovation

As we navigate a highly polarised world divided by differing ideals on energy and sustainability, women have a unique role to play. The energy transition demands empathy, collaboration, and systems thinking – qualities many women leaders naturally bring.

Throughout my career, I have seen how listening actively and embracing diverse perspectives can lead to innovative solutions. By working together, we can capitalise on emerging trends by deepening our technical skills and climate literacy while leveraging our strengths in community-building and creative problem-solving.

In my decarbonisation role, I've seen firsthand how whole-brain thinking – blending analytical and creative approaches – can unlock new opportunities. Women's ability to see the bigger picture and connect the dots across disciplines will be invaluable in driving the energy transition effectively.

Building a Sustainable Future

I find inspiration in the maternal instinct that many of us bring to our work – an instinct that drives us to care not just for immediate outcomes but for the well-being of future generations. By embracing this strength, women can lead with integrity and purpose, bringing balance to an industry at the forefront of global change.





Revolutionising Energy Mobility in Malaysia

Seow Lee Ming

General Manager of Mobility,
Shell Malaysia

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For women to capitalise on the emerging opportunities in energy, we must embrace continuous learning and step out of our comfort zones. There is no glass ceiling if we are willing to explore, adapt, and excel. By collaborating and mentoring others, women can foster a culture of innovation and inclusivity, becoming role models for future leaders.”

Leading Innovation with Purpose

With over 25 years of experience in the energy sector, I spent most of my career in Shell providing energy solutions to B2C & B2B customers spanning across local, regional & global. I had the honor of being the 1st female appointed as General Manager to lead the Global Key Accounts for Asia OEMs for Shell as well as my current role of General Manager Mobility in Malaysia where I relocated after spending 6 years in Shanghai.

I hold a first-class honours degree in chemical engineering from the University of Birmingham and a Master's in Management Studies from Cambridge University, where I was a Cambridge Commonwealth Scholar. During my tenure at Shell, I also completed executive courses at the Kellogg School of Management, Northwestern University, and IMD, Lausanne.

As the General Manager of Mobility Malaysia, I oversee a network of more than 1,000 mobility stations, serving over a million customers daily. Together with my team of 120 dedicated individuals, we have spearheaded numerous



transformative projects, including the Shell Recharge HPC Network and the Next Gen Site System. We are not only shaping the future of energy in Malaysia but also advancing Shell's mission of powering progress.

Connecting Regions, Reducing Carbon Footprints

A project that I hold close to my heart is the Shell Recharge HPC Network—a high-powered charging network that links Singapore, Malaysia, and Thailand.

This initiative is more than infrastructure; it is a testament to Shell's commitment to sustainable transportation and a greener future. A particular milestone under this project was establishing the highest altitude EV charging hub in Malaysia at Resorts World Genting, a feat recognised by the Malaysia Book of Records. The station features an ultra-fast 360kW DC chargers, setting a benchmark for EV infrastructure in Southeast Asia.

Additionally, I am proud to have contributed to solarising over 315 mobility stations nationwide, demonstrating our commitment to integrating renewable energy into our operations.

Transforming Customer Experiences

Innovation is not just about new technology; it's about reimagining how we connect with people. The Shell App has transformed how customers interact with us, offering seamless services like cashless payments, instant rewards,

and real-time updates. Meanwhile, our Next Gen Site System has brought operational excellence to our mobility stations, leveraging advanced technologies to optimise service delivery.

The introduction of Shell Café represents another innovation close to my heart. Beyond being fuel stations, our locations have become community hubs, offering a space where customers feel valued and welcome. This blend of convenience and quality defines the Shell experience, and I am immensely proud of how it has resonated with our customers.

Navigating Challenges with Agility

Leadership in the fast-evolving energy sector presents its own challenges. Balancing a strategic vision with flawless operational execution requires agility and a people-first approach.

Personally, I prioritise fostering an inclusive environment where diverse perspectives are valued and innovation thrives. Navigating gender biases, while challenging, has taught me resilience and the importance of advocating for equitable opportunities.

As a woman in a leadership role, I see the immense potential for women to drive transformative change in the energy sector. At Shell, diversity isn't just a buzzword; it's essential for business success. Women leaders bring unique perspectives, combining emotional intelligence



and resilience with strategic thinking – qualities crucial for navigating the complexities of the energy transition.

By mentoring and inspiring young women to pursue careers in STEM, we can create a pipeline of talent that will shape the future of energy. The energy transition demands innovative thinkers, and I believe women will play an integral role in this evolution.

Opportunities for Women in Energy

Emerging trends like digitalisation, renewable energy, and customer-focused innovation present exciting opportunities for women. The rise of female entrepreneurs and retailers within our sector inspires me, as they consistently deliver exceptional customer experiences while supporting technological advancements. With a multigenerational pool of Asian talent driving change, Malaysia is uniquely positioned to lead in balancing offline and online energy solutions.

For women to capitalise on these opportunities, we must embrace continuous learning and step out of our comfort zones. There is no glass ceiling if we are willing to explore, adapt, and excel. By collaborating and mentoring others, women can foster a culture of innovation and inclusivity, becoming role models for future leaders.

The energy transition is not just about technology or policy – it's about people. Together, we can lead the sector into a cleaner, more sustainable future. It's not just about what we do today but the legacy we leave behind for generations to come.



Driving Change: Leadership and Innovation in the Energy Sector

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The global energy sector is navigating a transformative period that demands innovative, adaptive leadership. Women leaders have a unique opportunity to shape this evolution by bringing neurodiversity and collaborative approaches to solve complex, paradoxical challenges, such as balancing energy security with the shift to cleaner energy.”

Shaping the Future of Energy: Leadership, Innovation, and Sustainability

With a career spanning over 25 years, I have dedicated my professional life to tackling some of the most complex challenges in the energy sector. My journey began as a Research Associate at the University of Newcastle, funded by an EPSRC grant where I developed safety cases, thermodynamic models, and standards for Carbon Capture and Storage (CCS). This work laid the foundation for CCS safety codes and policy development in the UK.

Following my time in academia, I joined a UK Oil and Gas Major as a CCS Technical Advisor in London before transitioning into the upstream business. Over the years, I've held leadership positions across the North Sea, Azerbaijan, Egypt, and Angola; delivering high-value, large-scale projects vital to national and strategic interests.

In 2021, I returned to Malaysia under the TalentCorp REP programme, taking on the role of Production Manager at Sabah Shell Petroleum Company Ltd, which is, interestingly, my first job in Malaysia. However, I currently serve as GM

Dr Patricia Seevam

**General Manager of Transformation
and Energy Transition,
Shell Malaysia**



Transformation and Energy Transition and Director of Shell New Ventures, where I drive the Shell upstream transformation strategy and energy transition initiatives for Shell Malaysia.

Throughout my career, I have championed sustainability by driving initiatives to reduce greenhouse gas emissions, optimise energy efficiency, and advance carbon capture technologies. These efforts culminated in achievements such as the OGMP 2.0 Gold Standard for Shell.

I hold a PhD from Newcastle University and am a Fellow of the Institution of Mechanical Engineers (IMechE), UK. Beyond work, I'm an avid runner and a proud mum to two wonderful children.

Redefining the Energy Landscape: A Journey of Transformation

Throughout my career, I have had the privilege of leading numerous projects, but two particularly stand out for their significance and complexity.

The first is achieving the OGMP 2.0 Gold Standard for Shell Malaysia, a significant milestone in methane reduction measures. This project required quick execution and scalability to obtain credible data, translating it into actionable climate change mitigation strategies. It was a proud moment to see our efforts recognised regionally, as our Malaysia asset became one of the first to achieve this standard.

Another defining project was leading the West Nile Delta development in Egypt, a large-scale gas and condensate development project, a significant contribution to the country's energy needs. This role required me to navigate a highly regulated environment and manage complex stakeholder relationships, including government authorities, NOCs, and contractors. The project was a

testament to the power of collaboration and the need to connect actions to a greater purpose – whether for a nation, society, or environment.

My early career as a research associate at Newcastle University also shaped my understanding of the importance of innovation and the roles that both academia and industry can play in the energy transition. My research on CCS technology during its infancy taught me that progress requires curiosity, persistence, and collaboration across disciplines.

Challenges, Opportunities, and Leadership

The global energy sector is navigating a transformative period that demands innovative, adaptive leadership. Women leaders have a unique opportunity to shape this evolution by bringing neurodiversity and collaborative approaches to solve complex, paradoxical challenges, such as balancing energy security with the shift to cleaner energy.

I believe women are particularly suited to navigating these adaptive challenges due to their ability to foster inclusivity, empathy, and emotional intelligence. This skill set is invaluable in managing diverse stakeholders, negotiating solutions, and integrating new technologies and business models. Women leaders can also nurture the next generation by creating an environment where diversity and equity are the norm, not the exception.

As Einstein aptly said, "We cannot solve our problems with the same thinking that created them." Women in leadership bring fresh perspectives and disruptive thinking, paving the way for a more sustainable and inclusive energy future.

Leading with Purpose: Advancing Sustainability in Energy

Leadership in the energy sector often means tackling

adaptive challenges where solutions are not straightforward. One of the most significant hurdles I've faced is the tendency to apply conventional technical thinking into problems that require behavioural and attitudinal shifts – such as the energy transition or the adoption of AI and automation.

Balancing cost competitiveness with the need to reduce emissions is another recurring challenge. This requires navigating competing priorities, fostering collaboration, and building a shared vision among stakeholders. I've learned that purpose-driven leadership can energise teams and inspire them to tackle even the most complex challenges.

What keeps me grounded is the belief that leadership is a collective journey. I've always strived to create an environment where my team feels empowered to challenge ideas and take ownership of solutions. By fostering collaboration and a shared sense of purpose, we've been able to overcome barriers and deliver meaningful results.

Emerging Trends Offering Opportunities for Women

The energy transition is reshaping the sector by creating opportunities in renewable energy, energy storage, AI integration, CCS, and sustainable fuels like green hydrogen. Women can lead these initiatives by leveraging their collaborative and empathetic approaches to tackle some of these complex challenges.

Renewable energy projects, decentralised systems, and

advancements in battery technology offer new avenues for women to contribute as engineers, project managers, and policymakers. Additionally, the increasing emphasis on cybersecurity and digitisation presents opportunities for women to drive innovation in energy management and efficiency.

I believe diversity is a key ingredient in navigating these trends. By fostering inclusive teams, we can unlock the creative potential needed to build a sustainable energy future.

Navigating the Energy Transition

To thrive in the evolving energy landscape, women must embrace lifelong learning, take bold risks, and step into leadership roles. Capitalising on trends such as digitisation, sustainable fuels development, and renewable energy requires women to bring their unique perspectives to the forefront – whether in policy advocacy, technical innovation, capability development, or community engagement.

Mentorship and networking are also critical. By supporting one another and building a pipeline of talent, women can significantly contribute to the continuous flow of innovative and game changing ideas with new approaches to leadership. Ultimately, the key to success lies in embracing challenges with courage and purpose, knowing that every step forward contributes to a cleaner, greener, fair and secure energy future.





Breaking Barriers: Women Driving Innovation and Leadership in the Energy Sector

Ts Sharifah Zaida Nurlisha binti Syed Ibrahim

CEO MMC Oil & Gas Engineering Sdn Bhd

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Digitalisation in the energy sector, through smart grids, IoT, and AI, offers opportunities for women to step into leadership roles in tech-driven energy solutions. By thinking holistically and combining technological advancements with sustainable practices, women can drive smarter, more efficient, and environmentally friendly energy systems.”

The Historical Context: A Long Road Ahead

Throughout history, men and women together have formed the backbone of every society. Yet, the balance has not been in our favour. We women, despite our contributions, have often been sidelined. Consider this: until 2023, the number of CEOs named “John” outnumbered all the women CEOs in the world. A sobering reminder of how far the journey ahead still is.

However, I like to think that this underrepresentation has created a natural camaraderie among women, a shared understanding that transcends words or societal constructs. We are bonded by an unspoken obligation, a collective responsibility to uplift one another and expand our boundaries, breaking barriers as we move forward.

Personal Experiences of Driving Innovation in Energy

Throughout my career, I have had the privilege of leading innovative projects that have contributed significantly to the energy sector.



One of the most memorable experiences was my appointment as Project Engineering Manager for an EPCC project in Sudan with PETRODAR. As the only woman in a male-dominated industry – and in a country where female leadership was rare – this project was both a daunting challenge and a remarkable opportunity.

Working alongside our partner Sinopec, I had to learn quickly, adapt, and tackle obstacles with creativity and determination. The project sharpened my problem-solving skills and gave me invaluable experience in navigating complex, cross-cultural environments while ensuring success. The lessons I learned in Sudan have stayed with me: resilience and innovative thinking are essential for thriving in the energy sector.

Another milestone was my tenure as the first female Vice President and later President of the Malaysian Oil & Gas Services Council (MOGSC). In these roles, I led initiatives that elevated the visibility of the oil and gas services sector. One of our most impactful projects was advocating for the inclusion of oil and gas services as essential during the COVID-19 lockdown. My team and I worked tirelessly with government bodies, including MITI and PETRONAS, to ensure that operations continued, safeguarding energy security in uncertain times.

We firmly believe that innovation is not only about technology but also about creating systemic change that benefits the entire industry. That was why we actively lobbied and supported PETRONAS' initiative to share market information and the industry applauded the inaugural launch of PETRONAS Activity Outlook 2017-2019.

Women as Changemakers in the Global Energy Sector

Women have always played pivotal roles in driving change, and as more women take on leadership roles in the energy sector, our impact will only grow. Women bring unique perspectives to leadership, often emphasising collaboration, empathy, and sustainability. These qualities foster inclusive and diverse environments where ideas can flourish.

One area where women can have a profound impact is in the integration of renewable and alternative energy sources. With the world increasingly focused on sustainability and carbon reduction, more women are positioning themselves at the forefront of this transformation. Our ability to balance social, environmental, and economic considerations gives us a distinct advantage in driving innovations that protect the planet and create sustainable energy solutions.

Additionally, women leaders can inspire future generations to pursue careers in energy, diversifying the workforce and ensuring the industry evolves with fresh ideas and perspectives.

Challenges in Leadership and Overcoming Them

Leadership in the energy sector, particularly as a woman, comes with its share of hurdles. One of the biggest challenges I have faced is the societal perception that women are less capable in technical or leadership roles, particularly in industries like oil and gas. If this perception were accurate, then in industries dominated by women, such as modelling, would it imply that men are inherently less attractive? Of course not. The truth is, the number of women in a field has no bearing on their ability or potential to succeed.

However, the male-dominated ratio in energy has often meant that women must repeatedly prove their worth. Early in my career, I had to navigate situations where I was constantly tested, whether presenting at conferences or leading projects. Overcoming this stereotype required consistent performance, resilience, and the ability to deliver results.

Another significant challenge has been balancing my personal and professional life. As a mother, I understand the complexities of managing family responsibilities alongside a demanding career. Over time, I realised that it is less about work-life balance and more about work-life prioritisation. It is impossible to do everything at once, and focusing on the most critical tasks at any given moment is key. My safety net



has been the unconditional support of my family, team, and strong partnerships.

Emerging Trends and Opportunities for Women

The energy sector is undergoing significant transformation, with the rise of renewable energy, digitalisation, and the global push towards sustainability. These trends offer immense opportunities for women, particularly in areas such as renewable energy, energy storage, and green technology, where the playing field is less saturated by traditional norms.

One key area of potential impact is energy storage technologies, critical for the successful integration of renewable sources like solar and wind. As clean energy demand grows, efficient energy storage becomes increasingly vital. Women can drive innovations in this field by leading research, developing battery technologies, or pioneering business models to make energy storage accessible and scalable.

Additionally, digitalisation in the energy sector, through smart grids, IoT, and AI, offers opportunities for women to step into leadership roles in tech-driven energy solutions. By thinking holistically and combining technological advancements with sustainable practices, women can drive smarter, more efficient, and environmentally friendly energy systems.

In MMCOG, we invested in digitalisation and implemented adoption of a data centric Smart design engineering house. Integrating the Unifi engineering together with E3D, we were the first Malaysian and Asian company to do so as per Aveva feedback. This action would enhance engineering accuracy and minimise errors in engineering design.

How Women Can Capitalise on Trends

To take advantage of these emerging opportunities, women should focus on education, mentorship, and strategic networking. Staying informed about developments in

energy technology and sustainability practices is essential. Continuous learning – through formal education, industry conferences, or hands-on experience – can open doors to new opportunities.

Mentorship is another powerful tool for growth. Finding a mentor or mentors can provide guidance and insight, while taking on a mentorship role allows women to give back and shape the next generation of leaders. Sharing experiences and fostering confidence in others strengthens the collective progress of women in energy.

Networking is equally important. By actively seeking collaborations through professional organisations, conferences, or joint ventures, women can build a robust network that expands their opportunities and positions them as key players in driving innovation.

Words of Wisdom for Future Generations

My advice is simple: stay true to yourself, even when the path feels challenging. I learned early on that being comfortable with solitude is empowering, not isolating. Studying in the UK taught me the importance of speaking up, even in uncomfortable situations, and embracing the courage to ask questions, no matter the fear of judgement.

Above all, never underestimate your capabilities. Know your strengths, embrace feedback, and view every challenge as an opportunity for growth. Women have an extraordinary capacity to lead, innovate, and inspire. By staying grounded and confident, we can continue shaping a sustainable and inclusive future for the energy sector, and the world.

Fear of failure tends to impede women from taking on bigger responsibilities. If opportunities present itself, embrace it with the skill and knowledge inherent in us. Inevitable failures along the way are valuable knowledge and self improvement to ourselves and may be the next step to success. My advise, no matter the burden of the failures, learn to get up to take on the next challenge. Never, ever give up.





The Pioneer in Modernising the Energy Sector

Datin Azita Azizan

Co-Founder and Chief People Officer,
Aerodyne Group

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Women are natural multitaskers, great managers, and high in emotional intelligence. These qualities enable us to connect the dots and approach problems holistically, complementing the deep, vertical focus that men often bring to the table.”

Personally, my secret to being where I am today is a combination of effective leadership, my resolve in keeping up with trends and innovations and of course, resilience. I find that balancing technological innovation and human-centric leadership is key to running a successful and sustainable outfit.

Personal Contributions to Innovation in Energy

As a technology company, we provide solutions for digital transformation. To be in the game, I have to always update myself on the industry's trends and technologies to offer best possible solutions to our clients. Our mantra has always been “faster, better, cheaper, safer.” All projects are driven by these values. This ethos has strengthened our partnership with our clients as well as position us as a pioneer in modernising the energy sector.

For example, in 2016, we spearheaded a project with Tenaga Nasional Berhad (TNB) to transform power line inspections. Traditionally, inspections involved labour-intensive processes: workers would physically climb poles, take photographs, and compile reports, a process that could take two to three months.

Our proposal to TNB was to introduce drones to replace manual inspections. The drone will actually fly and capture the data, providing visibility into the condition of the electrical



components. By leveraging digitised images and creating a simple software solution, my team was able to streamline the reporting process and reduce turnaround time to just one week.

That was just the beginning. Over the years, the system has evolved to incorporate AI and machine learning, enhancing the accuracy of defect detection. With 10 million hours of flying time, the AI can now identify issues with incredible precision. This transformation reduced costs by 20% and expedited processes by 200%, highlighting the power of innovation to create safer, faster, and more cost-effective solutions.

My mantra has always been “faster, better, cheaper, safer.” All my projects are driven by these values. This ethos has strengthened my partnership with TNB as well as position me as a pioneer in modernising the energy sector.

Women Leaders and the Future of Global Energy

Women are multitaskers and great managers with high emotional intelligence, enabling us to connect the dots and approach problems holistically. These are just some of the unique qualities we bring to the boardroom table.

I work alongside the CEO, who is also my husband. As partners in business, we focus our responsibilities based on individual strength. I sit at the board, and provide my perspective to any business decision. While he puts focus on

the vision and future strategy of the company, I, on the other hand, would spend a lot of my time building the right team to achieve this vision, whether its operation, finance or culture. We compliment each other. This recipe works for us since different perspectives are essential for success.

As change agents, women play a vital role in driving innovation and fostering inclusivity. We are crucial in shaping the future of energy. Let's go!

Challenges and Solutions in Leadership

From my observation, perception remains one of the most significant challenges in leadership. When we walk into the boardroom, people will be wondering about the size of our brain. This is one of the biases that women often face at work.

However, it's something that we can easily solve. My advice is to always be prepared, know your area inside out and speak your mind. The ability to identify problems and offer solutions would prove that we belong in the boardroom.

There are also the broader societal factors that influence women's participation in the energy sector. Industries like oil and gas, which often require extended fieldwork or offshore assignments, can create conflicts between family priorities and career aspirations. But this is all about teamwork and communication. Sit down with your family and discuss roles and responsibilities so there would be no conflict.

However, the reality is, we can't be a superwoman without support from family and society, whether it's family members helping with childcare or professional associations like Women in Energy offering moral support,

Emerging Trends: Opportunities for Women in Energy

The energy sector is undergoing a rapid transformation particularly in data science, AI, and ESG (Environmental, Social, and Governance) initiatives. These are key areas of opportunity. We should pick this up sooner rather than later since these are the technologies that will fundamentally reshape the industry.

Women are uniquely positioned to excel in these fields due to our attention to detail and ability to craft innovative solutions. We are great designers and curators, after all.

Even in my office, we rely on a team of women to lead ESG publications and initiatives. This demonstrates women's expertise in these emerging areas.

A Personal Mission: Inspiring Future Generations

Leadership extends beyond the workplace. It starts at home. As a mother, I see my role as a guide and mentor for the

next generation. Likewise, at work, we should play the role of equipping future leaders with the knowledge and values needed to navigate a changing world. "

My own journey is a testament to the power of continuous learning and adaptability. I'm an architect, not a tech person. Yet my commitment to staying relevant has enabled me to drive innovation in a highly technical field.

My advice to future leaders is to embrace change and foster a culture of learning to remain relevant in this fast-evolving industry.

Looking Ahead

My rise to the top is the result of having clarity, determination, innovation, and the power of collaboration. The ability to integrate technology with human-centric leadership offers valuable lessons for the energy sector and beyond. By breaking barriers, inspiring others, and embracing emerging trends, I hope to continue to pave the way for a more inclusive and dynamic future.

Remember, success is not about eliminating challenges but about navigating them with resilience, creativity, and a strong support system. It starts with you. Be the advocate. Be the change agent.





Driving innovation as the industry's trailblazer

Aida Hanani Ayub

Managing Director,
Eureka Efektif

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I envision a future where women foster collaboration and mentorship, create ecosystems that encourage innovation and creativity. Women's inherent support for sustainability and social responsibility also influences company strategies and long-term planning. By leveraging these qualities, women leaders can drive industry transformation while promoting inclusivity and sustainable growth.”

I'm the Managing Director of Eureka Efektif which I co-founded in 2008. We were instrumental in driving innovation, particularly through the development of Eureka's polyurethane manufacturing capabilities.

The company's first product, pipeline cleaning pigs, was fully designed and produced in-house in 2015.

This pioneering achievement established Eureka as one of the first Malaysian companies to manufacture such products, earning us pioneer status from MIDA.

Today, Eureka is the market leader in pipeline cleaning solutions in Malaysia, with ambitions to expand its polyurethane offerings further.

Digital transformation has also been a cornerstone of our growth. We implemented SAP for improved data management, migrated document systems to Microsoft



SharePoint and cloud platforms, and introduced software for HR management. Plans to automate manufacturing processes are in progress, reflecting Eureka's forward-thinking approach to operational efficiency.

I attribute meticulous planning, technical expertise, and an ability to adapt to dynamic industry demands to the growth of Eureka under my guidance.

My vision is to continue to shape Eureka's position as a trailblazer in the energy sector.

Confluence of Collaboration and Creativity

Female leaders play a critical role in shaping the future of the global energy sector. Qualities like empathy, independence, and the ability to nurture and coach talent are distinct strengths women bring to leadership roles.

I envision a future where women foster collaboration and mentorship, create ecosystems that encourage innovation and creativity. Women's inherent support for sustainability and social responsibility also influences company strategies and long-term planning. By leveraging these qualities, women leaders can drive industry transformation while promoting inclusivity and sustainable growth.

Significant Power Shift in Female Leadership

There are two major challenges in leadership: managing people and navigating external forces. Leading diverse groups of stakeholders—including clients, suppliers, and employees—requires clear communication, empathy, and an understanding of organisational dynamics. Emphasis should be given to listening instead of talking. We also need to adapt leadership styles to meet individual needs.

It is important to be prepared for rainy days too. External challenges such as economic downturns, regulatory shifts, and unprecedented crises (e.g., the COVID-19 pandemic) also test resilience. Through prudent financial planning, cost optimisation, and strategic foresight, Eureka managed to survive through economic downturns without retrenchments or pay cuts.

Collectively, us leaders should advocate for inclusive opportunities and collaboration in order to provide a level playing field for women in the energy sector.

Exploring the Emerging Opportunities for Women in Energy

Renewable energy, decarbonisation, and big data are the pivotal trends in shaping the future of energy. The



shift towards sustainability presents new opportunities for innovation, while advancements in digitalisation and data analytics open doors for enhanced efficiency.

I firmly believe that women are uniquely positioned to lead these efforts due to our attention to detail, collaborative mindset, and focus on long-term impact. By reskilling, upskilling, and staying attuned to market demands, women can capitalise on these trends to establish ourselves as pioneers in emerging fields.

A Personal Mission: Driving Innovation Through Ownership

Ownership is important in driving innovation. My philosophy is grounded in research and development, collaboration with technology partners, and leveraging grants from agencies such as SME Corp, Matrade, and Teraju.

Through these efforts, Eureka has secured 80% of Malaysia's pipeline pigging market, offering products that rival European and American manufacturers in quality.

By owning the production process, we are also able to control sustainability, profitability, and a competitive edge. I encourage all women out there to adopt this approach, so you can make the shift from being just participants to being leaders in the industry's transformation.

Looking Ahead

My journey is largely attributed to the power of perseverance, innovation, and strategic leadership. From navigating market complexities to fostering inclusivity, I hope my experiences will offer valuable lessons to future leaders in the energy sector.





Exploring the Emerging Energy Opportunities for Women

Ilme Onn

MOGSC (Malaysian Oil & Gas Services Council) and WeGO (Women in Oil, Gas, and Energy)

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In technical roles, women can break barriers by excelling in high-visibility projects and advocating for gender-neutral practices. By combining expertise with advocacy, women can foster inclusive, innovative, and sustainable practices, driving the energy sector forward and breaking down gender barriers.”

My roles with MOGSC (Malaysian Oil & Gas Services Council) and WeGO (Women in Oil, Gas, and Energy) have offered a front-row seat to the exciting intersection of innovation and the energy sector.

At MOGSC, I actively participated in digital transformation initiatives within the oil and gas industry. These projects emphasised integrated data platforms for efficient operations, real-time monitoring systems for offshore platforms, and AI-driven predictive maintenance that anticipates equipment failures to minimise costly downtimes.

In WeGO, I championed gender diversity and inclusion, promoting policies to bring more women into leadership roles and launching mentorship programmes for young women pursuing careers in the energy sector.

Through both organisations, I also contributed to advancing renewable energy projects, advocating for sustainability within Malaysia's oil and gas sector, and exploring carbon capture and storage (CCS) technologies.

Additionally, at Aerodyne, I was involved in cutting-edge drone inspections and AI-powered analytics that revolutionise industrial operations, showcasing how



technology can lead to productivity gains and digital transformation.

Women as Changemakers in the Energy Sector

As a mentor in WeGO, I believe women leaders will play a transformative role in the future of the energy sector. They bring diverse perspectives, foster inclusive decision-making, and often lead sustainability initiatives.

Women's leadership in advancing renewable energy, advocating for cleaner transitions, and championing technological innovation will be pivotal.

Additionally, women tend to create collaborative work environments that retain talent and inspire younger professionals. Beyond organisational impact, women leaders can address energy access gaps in underserved regions by driving inclusive energy policies.

This multifaceted contribution positions women as changemakers capable of reshaping the energy sector's future.

Overcoming Challenges in Leadership

Leadership in the energy sector is not without its challenges. These include industry volatility, driven by fluctuating markets and geopolitical uncertainties, demands agility, risk management, and innovation.

Balancing the shift to renewable energy with the profitability of fossil fuels remains a key hurdle, requiring leaders to integrate sustainable projects and partner with technology providers like Aerodyne for efficiency.

Driving innovation in a traditional industry is challenging, but fostering a culture of openness and providing training can ease the transition.

Gender bias and lack of diversity remain pervasive, and organisations like WeGO are critical in promoting inclusion through networks, mentoring, and robust diversity policies.

Finally, stakeholder engagement is essential, and I have found that building trust, fostering transparency, and involving stakeholders in decision-making create shared value and mitigate conflicts.

Emerging Trends and Opportunities for Women

The energy sector is undergoing rapid transformation, creating opportunities for women in leadership, technology, and sustainability.

The global push for decarbonisation has accelerated investments in renewable energy, opening doors for women in policy-making, technical roles, and business development. Digital transformation is another area ripe with opportunity, with IoT, AI, and smart systems reshaping operations. Women with expertise in technology can lead these initiatives.



Sustainability and ESG standards are increasingly prioritised, and women often champion these efforts, managing ESG reporting or heading corporate social responsibility programs.

Emerging sectors like the hydrogen economy and policy advocacy also provide platforms for women to shape the future of energy.

Capitalising on Trends to Drive Innovation

Women can leverage these emerging trends by addressing long-standing challenges like underrepresentation, work-life balance, and limited leadership opportunities. Building strong professional networks, such as WeGO, and advocating for flexible work environments are critical steps.

Women leaders must seek out or initiate mentorship programmes to enhance access to leadership development opportunities.

In technical roles, women can break barriers by excelling in high-visibility projects and advocating for gender-neutral practices. By combining expertise with advocacy, women can foster inclusive, innovative, and sustainable practices, driving the energy sector forward and breaking down gender barriers.

This comprehensive outlook demonstrates how women leaders are essential to the transformation and future of the global energy industry.





Advancing Innovation in Energy and Leadership

Fern Raja Harris

Chief Technical Officer
EXS Synergy

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The energy landscape is evolving rapidly, with renewable energy, digital transformation, and the energy transition presenting unparalleled opportunities. These trends demand fresh ideas and bold leadership, creating space for women to excel in engineering, research, and policymaking.”

With a career spanning over two decades in the oil and gas sector across Malaysia and the UK, I have dedicated my professional journey to driving innovation in energy and fostering inclusivity in leadership.

My foundation in electrical engineering from the University of Warwick equipped me with the technical expertise to explore new frontiers, particularly in explosion protection and the energy transition.

As the Chief Technical Officer of EXS Synergy, I have led groundbreaking projects, including the development of *intellEx*®, an award-winning Ex-management solution. This innovative platform exemplifies how technology can revolutionise safety, efficiency, and sustainability in hazardous environments.

Engineering is in my Veins

My father was a mechanical engineer, and from a young age, I was captivated by his hard hat and the stories of his workday. His explanation about how the energy of water turning water turbines that eventually turned to electricity fascinated me. I guess it's inevitable that one day, I would be drawn to engineering.



In fact, my father raised four engineers. His influence extends far beyond his professional contributions to renewable energy; it molded the personal and professional paths of both his children and stepchildren. My step-sister and step-brother took up mechanical engineering, whereas my brother and I veered towards electrical engineering. Nature or nurture—that’s how strongly his influence and way of doing things has impacted our family. I even married an engineer, and our son has taken up engineering too.

My father has always been my biggest champion. He never once made me feel as though there were limits to what I could achieve. To him, ambition had nothing to do with gender, and because of that, I grew up with a kind of blissful ignorance toward societally imposed gender limitations. That perspective gave me the confidence to trust my abilities and the resilience to keep pushing forward, especially as a woman in the energy sector.

Transforming Energy Operations with Technology

At EXS Synergy, we faced a pivotal challenge in 2018: outdated, manual inspection processes that were labour-intensive and prone to error.

Seizing the opportunity for digital transformation, we introduced a risk-based inspection (RBI) algorithm, revolutionising how we prioritised resources in explosive atmospheres. The results were remarkable – doubling inspection productivity, reducing exposure time in explosive atmospheres by half, and saving clients up to 30%.

This achievement, recognised internationally through awards such as the 2024 World Energy Supply Chain Award, underscores the potential of innovation to transform industry practices.

Presenting my paper on RBI at ADIPEC 2023 was a proud moment, showcasing Malaysia’s leadership in energy technology.

Turning Waste into Value with Flare-to-Power

The energy transition is central to my work. One of our key initiatives is the Flare-to-Power (F2P) solution, addressing Malaysia’s significant gas flaring emissions. By converting flared gas into usable energy, this project aligns with PETRONAS’s zero-flaring goals by 2030 and Malaysia’s commitment to achieving net-zero emissions by 2050. Launching the first F2P system in 2025 will mark a significant step towards sustainable energy solutions for the APAC region.

Championing Women’s Leadership in Energy

As the Chairperson for MOGSC’s Women in Energy, Oil and Gas (WeGO), I am passionate about empowering women and youth in the sector. Women bring unique perspectives to leadership, fostering inclusivity and reimagining traditional models. My approach focuses on mentorship and creating opportunities for young professionals to thrive.

The energy sector benefits significantly from the diversity



women bring – whether through collaboration, innovative problem-solving, or their commitment to social equity. By breaking barriers and championing inclusivity, women are reshaping the industry.

Overcoming Challenges with Resilience

Leadership in a traditionally male-dominated industry like energy comes with its challenges. Gender bias and unconscious stereotypes remain obstacles, but I have embraced these as opportunities to educate and inspire. Turning on my camera during online meetings to assert my presence and expertise is one of the subtle but impactful ways I have tackled these barriers.

Another pressing challenge is talent acquisition. With a growing demand for engineers across industries, addressing the shortage requires collaboration among government, industry, and education sectors. Diversity and inclusion efforts must intensify to attract talent from all backgrounds, ensuring Malaysia remains competitive in the global market.

Embracing Emerging Opportunities

The energy landscape is evolving rapidly, with renewable energy, digital transformation, and the energy transition presenting unparalleled opportunities. These trends demand fresh ideas and bold leadership, creating space for women to excel in engineering, research, and policymaking.

My vision for the future is one where diverse voices shape the sector, fostering innovation and resilience. By nurturing talent and prioritising inclusivity, we can build a dynamic, sustainable energy future that benefits everyone.

To young women considering careers in engineering, my advice is simple: follow your curiosity and never let societal expectations define your path. Understanding how the world works and contributing to its transformation is a privilege. If you’re passionate about making a difference, the energy sector is ready for you.





Transforming the Energy Sector by Taking Up the Challenges

Ir. Ts. Dr. Wan Syakirah Wan Abdullah

Head, Business Assessment and Engineering, TNB Renewables, Tenaga Nasional Berhad

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One area I’m particularly passionate about is exploring new technologies like energy storage, and offshore solar. These might not be groundbreaking in other parts of the world, but for Malaysia, they’re transformative. My role often involves testing these technologies, adapting them to our local context, and ensuring their successful deployment.”

When people ask me what drives me in the energy sector, my answer is simple: I want to make a difference. This field isn’t just about technology or innovation—it’s about creating solutions for real-world problems and building a sustainable future. My journey has been a blend of challenges, growth, and an unwavering belief in the power of teamwork and resilience.

Innovative Projects: Shaping the Future of Energy in Malaysia Innovation has always been at the heart of my work. At Tenaga Nasional Berhad (TNB), I’ve had the privilege of leading several Renewable Energy projects that push the boundaries of what’s possible in Malaysia.

I’ve previously been involved in waste-to-energy projects, where we convert waste materials into usable power. It’s a concept that’s still new here, but I believe it has incredible potential to change how we think about sustainability.

Another highlight of my career has been leading large-scale solar initiatives. When I first started, solar plants in Malaysia were relatively small - 30 Megawatts at most. Now, we’re talking about sites with capacities of hundreds of Megawatts



or more. Watching these projects grow has been nothing short of extraordinary.

And then there's the cross-border energy trade, a space where I've had the opportunity to lead initiatives under the spirit of the ASEAN Power Grid. These projects are complex, requiring collaboration across countries, industries, and teams. But they're also incredibly rewarding because they demonstrate how energy can connect people and drive progress on a regional scale.

Women in Energy: Complementing, Not Competing

Working in a male-dominated field like engineering and project management comes with its challenges. But I've come to realise that women bring unique strengths to the table.

We women are good negotiators, we're great planners, and we can solve problems with empathy and efficiency. These qualities aren't just nice-to-haves - they're critical in an industry where collaboration and adaptability are key.

I've always believed that women aren't here to compete with men. We're here to complement them. Our ability to approach

problems from a different perspective often broadens the scope of solutions. In my teams, I've seen how having a mix of genders leads to more well-rounded discussions and better decision-making.

The energy sector can be stressful, no doubt. Projects are deadline-driven, fast-paced, and demanding. But for me, the key to thriving in this environment is simple: enjoy what you do. If you love your work, the stress becomes manageable, even motivating. I've always found joy in knowing that the work I'm doing is making a difference - not just for the industry, but for the communities we serve.

Overcoming Challenges: Leading with Resilience and Teamwork

Leadership in the energy sector isn't easy. One of the biggest challenges I face is ensuring projects are completed on time. It's not just about meeting deadlines—it's about coordinating with multiple stakeholders, aligning everyone's goals, and navigating unexpected obstacles.

To tackle this, I emphasise the importance of every team member's role. I often tell my team, "Your piece of the puzzle

matters. Without it, the whole picture won't be complete." By showing people how their contributions fit into the bigger picture, I've found that they become more motivated and engaged.

At the same time, I encourage independence. I want my team to feel confident in their abilities and take ownership of their work. But I also make it clear that if they're stuck, they can always come to me for guidance. Leadership, for me, is about striking that balance between autonomy and support.

Emerging Trends: Opportunities in Renewable Energy

The Renewable Energy sector is where the future lies, and I'm excited to see how it continues to grow. In the past, solar projects were seen as small-scale ventures. Today, they're massive undertakings, with sites capable of generating hundreds of Megawatts. This shift represents a tremendous opportunity for innovation and growth.

But transitioning to green energy isn't straightforward. It requires significant investment, and it's often more expensive than traditional energy sources like coal or gas. I often explain that moving to solar or wind power comes at a premium - it's not just about the technology; it's about shifting mindsets. People need to see this as an investment in a sustainable future, not just an added cost.

For women, these emerging trends present a unique opportunity to carve out a niche. The Renewable Energy space is vast and largely untapped. This is our chance to step in, claim our space, and contribute in meaningful ways.

Advise to Women: Embrace Challenges, Be Brave & Persevere
If there's one thing I've learned in my career, it's this: you have to be brave.

It's not easy being a woman in a male-dominated field. There are moments when you'll feel small, hesitant, even unsure of your place. But don't let those feelings stop you. Instead, use them as fuel to push yourself forward.

I've always had a drive to try new things, even if they scare me. But trying something new requires constant learning. It's a process of trial and error, an on-going process until you get it right. I often remind myself, "Even if you can't get everything right on the first try, that is okay. What matters is that you keep on going, perseverance is key."

To women entering this field, my message is clear: take risks. Be bold. Find your strengths and capitalise on them. And remember, you're not here to compete - you're here to contribute.

Looking Ahead: Building a Sustainable Future

The energy sector is evolving, and I believe women have a vital role to play in shaping its future. By embracing our strengths, stepping into leadership roles, and collaborating with our male counterparts, we can drive meaningful change.



For me, this journey has been about more than just projects or technologies—it's been about growth, resilience, and making an impact. As I look ahead, I'm excited to see how we can continue to innovate, collaborate, and build a sustainable future for generations to come.

The energy sector needs us - our ideas, our perspectives, our courage. As we step into this space, we're not just shaping careers; we're shaping the future of energy itself.



Illuminating the Path to a Sustainable Energy Future

**Assoc. Prof. Dr.
Norasikin Ahmad Ludin**

Deputy Director,
Solar Energy Research Institute, UKM

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By ensuring women’s voices are represented in technical and leadership roles, we can foster a more inclusive and equitable energy transition. Women leaders often prioritise equitable access to energy and long-term sustainability, promoting the social consciousness needed to address global challenges effectively.”

A Journey Rooted in Science and Sustainability

For over 25 years, I have been on a journey that intertwines science, sustainability, and leadership. My path began with a PhD in Chemistry, specialising in Solar Photovoltaic Technology from the University of Wales. This academic foundation ignited my passion for renewable energy and the circular economy, culminating in global recognition for my contributions.

The pursuit of knowledge has always been my guiding light. I have explored the transformative potential of renewable energy technologies through 150 high-impact publications and renewable energy grants totalling USD 5.4 million at both international and national levels.

Executive education at Cambridge University further broadened my perspective, enabling me to integrate sustainability strategies into my work.

I am particularly proud to gain Recognition as a Top Research Scientist Malaysia (2022) and inclusion in the World Top 2% Scientist list (2022–2024). These acknowledgements have validated my lifelong commitment to advancing renewable energy.



Transformative Projects with Global Impact

Innovation in renewable energy has been the cornerstone of my career. Among the most impactful projects I have led is the development of natural dyes from Malaysian plant species for solar cells. This initiative, which combines renewable energy with the richness of Malaysia's biodiversity, has attracted international acclaim.

It has also provided opportunities to share my findings as a Visiting Professor at Tokyo University of Science and Claremont McKenna College in the United States.

At the regional level, my work with the Asia-Pacific Economic Cooperation (APEC) has been particularly rewarding. Researching the environmental impact of solar photovoltaics across ASEAN has informed policies that prioritise sustainability.

Recognised by the Economic Research Institute for ASEAN and East Asia (ERIA), my contributions have shaped energy transition strategies and supported the circular economy throughout the region. Four policy papers published for APEC 2020 stand as a testament to this collaborative effort and its impact.

Women Empowering the Energy Sector

Women bring a unique perspective to the energy sector, one that emphasises sustainability, collaboration, and community-driven solutions. As a mentor for the Women Energy Leaders programme under the United States Energy Association, I have worked to inspire and support young women as they navigate this dynamic field.

Advocating for policies that promote gender diversity is equally crucial. By ensuring women's voices are

represented in technical and leadership roles, we can foster a more inclusive and equitable energy transition. Women leaders often prioritise equitable access to energy and long-term sustainability, promoting the social consciousness needed to address global challenges effectively.

Navigating Challenges and Inspiring Change

Leadership in the energy sector comes with its challenges, particularly in a traditionally male-dominated industry. Balancing professional responsibilities with personal commitments, such as family, has been one of the most significant obstacles. Setting boundaries, effective time management, and building support networks have been vital in overcoming this.

Gender bias and underrepresentation remain pervasive hurdles. Women often have to repeatedly prove their expertise to gain recognition. To counter this, I have focused on continuous learning, building confidence, and advocating for inclusivity within organisations. Engaging with professional networks and seeking mentorship from experienced leaders have been instrumental in navigating these barriers.

By leading with empathy, resilience, and strategic communication, I have not only overcome these challenges but also inspired others to pursue leadership roles in the energy sector.

Opportunities in a Transforming Energy Landscape

The global energy sector is evolving rapidly, creating unprecedented opportunities for women to lead and innovate. Emerging technologies such as artificial intelligence (AI), smart grids, and hybrid energy systems present unique

opportunities for women to contribute to more efficient, resilient energy solutions.

Solar energy continues to be a key area of growth, with advancements in tandem solar cells and energy storage systems paving the way for researchers and engineers to enhance renewable energy's reliability and scalability.

The rise of decentralised energy systems and the focus on renewable sources such as wind and solar also create significant opportunities in policy development, project management, and sustainability roles. Women's perspectives are invaluable in ensuring the energy transition remains both equitable and socially inclusive.

Shaping the Future of Energy Innovation

Women have an essential role to play in the evolving energy sector by embracing opportunities for continuous learning and collaboration. Building expertise in cutting-edge technologies such as AI and advanced solar systems is critical for staying ahead in this dynamic field.

Networking is another powerful tool for growth. Engaging with professional associations, industry conferences, and mentorship initiatives fosters connections that open doors to new opportunities.

Advocating for diversity and inclusion within organisations creates an environment where women's contributions are valued and amplified. Entrepreneurial ventures, such as renewable energy start-ups or community solar projects, also offer avenues for impactful leadership.

By shaping inclusive policies and driving innovations that prioritise environmental and social impacts, women can lead the energy sector into a more sustainable and equitable future for generations to come.





Innovating in Energy: Driving Change through Leadership and Expertise

**Sheriffah Noor
Khamseah Al-Idid Dato
Syed Ahmad Idid**

International Consultant on Nuclear Energy and Innovation And Former Special Officer to the Science Advisor to Malaysia's 4th Prime Minister

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Innovation extends beyond science and technology. Women can drive holistic progress in the energy sector by introducing new financing models, business strategies, and communication tools.”

Since embarking on my journey in the energy sector with a background in physics from Imperial College London, I have devoted my career to advancing innovation, particularly in nuclear energy and high-tech financing.

My work, spanning decades and continents, has been driven by the conviction that innovation and clean energy is crucial to building a resilient , sustainable and prosperous future.

Among my proudest achievements is chairing the report on enhancing venture capital (VC) financing in Malaysia (1999) and strategising and authoring the Report on the introduction of business angel financing (2000) .

These efforts resulted in RM500 million being allocated to venture capital financing for the first time in Malaysia in 2000, a year before the establishment of Malaysia Venture Capital Management Berhad (MAVCAP) with recommendations incorporated into the nation's 10-year Financial Sector Master Plan which had laid the foundation for developing Malaysia's strategic and high-tech industries.

Innovative Models for Financing Nuclear Power

A defining moment in my career was presenting my paper on the economics and financing of nuclear power at an international nuclear conference which was commended by the official from the International Atomic Energy Agency (IAEA) who encouraged me to continue my work in this area which he highlighted was important for the Agency.

Another key milestone was reached when my work on Financing Nuclear Power was referenced by the International Strategic Advisory Group (SAG) in planning for the establishment of an International Bank for Nuclear Infrastructure (IBNI).



Sharing international examples of innovation in financing nuclear power at the Asia Pacific Nuclear Energy 2023 (APNE2023), I had the privilege of receiving commendations, including from Charles Oppenheimer, the grandson of J. Robert Oppenheimer, Father of the Atomic Bomb, and founder of Oppenheimer Project and Oppenheimer Energy Venture. With the Oppenheimer Project, a commitment to honoring the legacy of J. Robert Oppenheimer, Charles Oppenheimer leads a civil society initiative catalysing partnerships between policy-makers, experts, and funders to expand nuclear energy production and reduce the nuclear weapons threat, guided by the ideas of J. Robert Oppenheimer, aimed at promoting a safer future in the face of technological change. These interactions highlighted the critical need for new business models to support large-scale nuclear energy projects worldwide.



Promoting Opportunities in the Nuclear Supply Chain

Recognising the trillion-dollar potential in the global nuclear supply chain, I championed the inclusion of this sector in Malaysia's Economic Transformation Programme (ETP). Collaborating with the Construction Industry Development Board (CIDB), I initiated the Nuclear Energy Seminar within the International Construction Week (ICW).

Working with leading nuclear companies such as Westinghouse, KEPCO, AREVA and Edf, these seminars provided Malaysian stakeholders with invaluable insights into nuclear construction challenges and opportunities. Held over several years, the seminars inspired local industries to explore their roles in the global nuclear supply chain.

Building Foundations for Nuclear Education and Leadership

As a member of the IAEA's Consultancy Meeting on Nuclear Human Resource Development, I have actively contributed to international discussions on Nuclear HRD. I was instrumental in the development of Directories of Nuclear Education and Training in the UK, Korea, France and Japan. These comprehensive resources have become invaluable for students and professionals seeking opportunities in international nuclear education.

In 2013, I was privileged to have the opportunity to present on Nuclear Education & Training- International Best Practices at the inaugural International Nuclear Human Resource Development Conference held in Busan, Korea, organised by KINGS. I was honoured to be informed by the organisers that I was the first international female to deliver a presentation at this esteemed event.



New Education & Training Modules for the World Nuclear University and World Nuclear Exhibition (WNE)

In 2014, I proposed the introduction of lectures on nuclear supply chain opportunities to the World Nuclear University (WNU), leading to their inclusion in the Summer Institute (SI) programme in 2015. Later, in 2018, I recommended establishing a Nuclear Leadership Executive Programme, which was adopted a few years later. Delivering the first lecture on the nuclear supply chain in Uppsala, Sweden, was a career highlight, with positive feedback underscoring the importance of equipping professionals for diverse roles in the nuclear ecosystem.

In addition to my work with the WNU, I was honoured to serve as a jury panel member for the World Nuclear Exhibition (WNE) Award for Knowledge Management in 2016. In 2018, I became the only female nuclear professional invited to speak at the WNE CEO Luncheon in France, further contributing to the dialogue on nuclear advancements and leadership.

Influencing Nuclear Policy at the IAEA

In 2015, the late Mr Yukiya Amano, Director-General of the IAEA, visited Malaysia and delivered a keynote address at the Putrajaya International Convention Centre (PICC). During the

Q&A session, I emphasised to Mr Amano the importance of government support for planning and investment in nuclear power and nuclear science and technology (S&T), particularly for countries preparing to adopt these technologies. I stressed the need for ministers with relevant portfolios—such as Science, Education, Economics, and Industry—to actively engage in discussions, ensuring a holistic approach to nuclear power and S&T adoption.

I also suggested that the IAEA expand its Ministerial Conference on Nuclear Power, which primarily involves Ministers of Energy, to include other ministries critical to

the success of nuclear initiatives. Mr Amano expressed his gratitude for my recommendations and assured me they would be considered.

Three years later, I was deeply honoured to witness the inaugural IAEA Ministerial Conference on Nuclear Science and Technology: Addressing Current and Emerging Development Challenges, held in Vienna, Austria, from 28 to 30 November 2018. This milestone conference fostered high-level dialogue on the peaceful uses of nuclear science and technology and highlighted their role in advancing sustainable development.



Driving Nuclear Governance and Stakeholder Engagement

Balancing technical demands with societal expectations is a critical challenge in the energy sector. Addressing public misconceptions about nuclear energy and effectively engaging stakeholders requires transparent communication, inclusive consultations, and strategic partnerships. I am honoured to have been appointed as a Consultant on Nuclear Governance and Stakeholder Engagement for a European Commission-funded project on Nuclear Safety, Security, and Safeguards. Additionally, I have shared my insights on stakeholder engagement for nuclear power at forums hosted by the African Young Generation in Nuclear (AYGN) and the Kenyan Young Generation in Nuclear (KYGN).

Shaping Emerging Trends in Nuclear Energy

The narrative around nuclear energy has shifted from Renewable or Nuclear Energy to Renewables and Nuclear Energy, recognising nuclear as a vital clean energy source in achieving net-zero goals. This evolving perspective has created new opportunities for women to shape the future of energy systems. A pivotal moment in my career was being invited by Mr Mikhail Chudakov, Deputy Director-General and Head of Nuclear Energy at the IAEA, to join a panel of nuclear leaders at the IAEA's inaugural Conference on the Role of Nuclear Power in Climate Change.

Empowering Women in the Energy Sector

Despite persistent gender biases in leadership, I have overcome barriers through continuous learning, advocating for inclusivity, and building supportive networks. In 2015, I presented my work on Enhancing Awareness of Nuclear Power to Stakeholders at the Global Women in Nuclear (WIN) Conference in Vienna. In 2016, at the WIN Conference in Abu Dhabi, co-organised with Emirates Nuclear Energy Corporation (ENEC), I received mentorship requests from young participants and an invitation to join ENEC—a prestigious opportunity I declined to focus on Malaysia's nuclear power planning.

Currently, I am championing Malaysia's commitment to the Declaration on Women in Energy Transition introduced at COP28 in Dubai. I am also advocating for ASEAN Member States to endorse the declaration under Malaysia's ASEAN Chairmanship in 2025, in collaboration with the ASEAN Centre for Energy (ACE).

Celebrating World Nuclear Energy Day

As the Global Ambassador for World Nuclear Energy Day – Malaysia, I have collaborated with Malaysian universities since 2022 to celebrate this significant occasion annually in December. The event honours the groundbreaking achievement of Enrico Fermi and his team, who initiated the first man-made self-sustaining nuclear fission chain reaction on 2 December 1942—a landmark in the history of nuclear power.



ENERGISING DIVERSE PERSPECTIVE ACROSS GENERATIONS



Empowering Female Leadership: Driving Diversity and Inclusivity to Fuel the Growth of Malaysia's Energy Sector

Established in 2018, Malaysia Women in Energy (MyWiE) stands as a pioneering platform dedicated to advocating and championing gender equality in Malaysia's energy sector. Through years of relentless dedication, collaboration, and passion; MyWiE has grown into a leading force in empowering women and promoting diversity and inclusion (D&I) within an industry historically dominated by men. By working to create opportunities and remove barriers, MyWiE is helping reshape the energy landscape to be more inclusive and equitable for future generations.

The journey of MyWiE began with the Forum on Women in Energy (FoWiE) in 2017, an initiative organised by the Malaysian Gas Association (MGA) in collaboration with PEMANDU Associates. This inaugural forum gathered over 100 stakeholders, including prominent women leaders, middle managers, and emerging professionals from 44 organisations, to explore the pressing need for greater female representation in the energy sector, particularly in leadership roles.

The overwhelming enthusiasm and support generated during FoWiE 2017 catalysed the formation of MyWiE in 2018 as a formal advocacy group. Its primary mission was clear: to champion equal opportunities for women across the energy industry, from technical roles to top-level management positions.

Today, MyWiE's leadership is driven by a distinguished panel of industry leaders, including:

- **Zahid Osman**, Chair of MyWiE and President & Group CEO of MISC Berhad
- **Datuk Zunaidah Idris**, Founder of the Women Leadership Foundation and MyWiE Advisory Panel member
- **Norizah Othman**, President of Shell Women Action Network (SWAN) in Shell Malaysia

- **Marina Md Taib**, PETRONAS Leading Women Network (PLWN) Champion
- **Puan Hajah Siti Aisah Adenan**, Senior Vice President of Corporate Services and Sarawak Energy Leading Women Network (SELWN) representative
- **Anne Abraham** of the 30% Club and
- **Ilham Suhanji**, MyWiE Advisory Panel member. Together, they spearhead strategic initiatives to advance meaningful progress toward gender equality in the industry.

Forging Pathways for Women in Energy

Since its establishment, MyWiE has focused on three strategic workstreams to drive transformative change within the energy sector:

1. **Attracting young women to technical roles in energy and related STEM fields.**
By addressing gender stereotypes and improving outreach programmes, MyWiE encourages more young women to envision careers in engineering, technology, and energy-related sciences.
2. **Recruiting, retaining, and promoting women into leadership positions.**
MyWiE collaborates with member organisations to identify systemic barriers, implement targeted interventions, and support female professionals in advancing their careers.
3. **Supporting women at the top of the career ladder.**
Initiatives such as mentorship programmes, networking events, and leadership training are designed to nurture and sustain women already in executive roles, ensuring their continued success and influence.

Key Milestones in MyWiE's Journey

A landmark moment for MyWiE came in 2018 with the release of the comprehensive report *Strategies & Best Practices for Attracting, Developing & Retaining Women in*

STEM & Energy Sectors in Malaysia. Developed with input from over 25 organisations, the report highlighted actionable recommendations for addressing gender disparity. It provided a blueprint for tackling systemic issues, ranging from recruitment practices to leadership progression, and institutionalising diversity and inclusion across member organisations.

This report laid the foundation for targeted initiatives, including flexible work arrangements, mental health support policies, and Diversity & Inclusion Councils. These measures have since been adopted by several companies, marking significant progress in reshaping organisational cultures.

Despite the challenges posed by the COVID-19 pandemic, MyWiE continued to make strides in advancing gender equality. In 2021, the organisation hosted a CEO Roundtable, gathering leaders from 10 major energy companies to evaluate the progress made since the 2018 report. Encouragingly, many member organisations reported significant increases in female representation in both technical and leadership roles. Some companies even achieved gender parity in their workforce, with women comprising up to 50% of employees.

Notable advances include:

- Implementation of inclusive workplace policies, such as flexible work arrangements and mental health support.
- A marked increase in women entering technical roles and progressing along leadership tracks.
- Establishment of Diversity & Inclusion Councils, which foster cultural shifts and promote equitable practices.

Additionally, MyWiE has played a key role in nurturing a robust talent pipeline. Over 80% of member organisations have expanded their outreach programmes to schools and universities, inspiring young women to pursue careers in the energy sector. Networking platforms and mentorship opportunities have also been created, connecting emerging female engineers with experienced professionals and empowering women at every stage of their careers.

MyWiE’s transformative journey from vision to impact exemplifies the power of collective action in driving systemic change. By challenging traditional norms and empowering women through actionable strategies, MyWiE is not just advancing gender equality but also strengthening the energy sector as a whole. With its continued focus on collaboration, innovation, and advocacy; MyWiE is paving the way for a more inclusive and sustainable future for Malaysia’s energy industry.

Context Setting: Women in Energy: Pioneers, Innovators, and Change Makers in Malaysia

World Bank

The energy sector globally has witnessed significant strides toward inclusivity, yet persistent challenges remain, particularly in integrating more women into its workforce. Globally, women account for only 22% of the oil and gas workforce and 32% in the renewable energy sector, reflecting the need for focused initiatives to bridge this gender gap. In Malaysia, as the country advances its commitments to sustainability and clean energy, there is an opportunity to amplify women’s contributions to this critical industry.

The World Bank’s “Tracking SDG 7” report highlights the pressing need to tackle the underrepresentation of women in STEM and technical roles, areas crucial for driving innovation in the energy transition.⁶ Similarly, the “Toward More and Better Jobs for Women in Energy” assessment emphasises the importance of promoting women in STEM education and leadership roles, advocating for policies that create an inclusive and supportive environment.⁷ Regional programmes like WePOWER have demonstrated how cross-sector collaborations and targeted interventions – such as mentorship, training programmes, and flexible work policies – can enhance female participation in the sector, benefiting both communities and economies.⁸

In Malaysia, the energy transition provides a unique platform to showcase the pivotal roles women play as pioneers and innovators. By leveraging international models and localising them within Malaysia’s socio-economic and cultural framework, the nation can position itself as a leader in gender-inclusive energy policies. This publication aims to celebrate the trailblazers in Malaysia’s energy landscape, sharing their stories and highlighting actionable pathways for empowering more women to lead the charge in shaping the future of energy.

Through global insights and local successes, Women in Energy underscores the role of gender inclusivity as not only a matter of equity but also as a strategic imperative for achieving sustainable and resilient energy solutions for Malaysia and beyond.

Malaysian Gas Association (MGA) and MyWiE’s role in Championing Diversity & Inclusion in the energy sector

The energy sector is undergoing a remarkable transformation, not only in its pivot toward sustainability but also in its recognition of Diversity and Inclusion (D&I)

as critical drivers of innovation and resilience. In Malaysia, this evolution is being led by Malaysia Women in Energy (MyWiE), an advocacy group established under the Malaysian Gas Association (MGA) after a successful First Forum on Women in Energy (FoWiE) in 2017 in conjunction with Oil & Gas Asia (OGA 2017) that was well attended by 44 organisations.

Since its inception in 2018, MyWiE has been a key force in advancing women’s participation in Malaysia’s energy sector. It serves as a dynamic advocacy platform, uniting established women-centric networks as its founding members - PETRONAS Leading Women Network (PLWN), Shell Women Action Network (SWAN), Sarawak Energy Leading Women Network (SELWN), 30% Club and PEMANDU Associates. The most notable and impactful achievement by MyWiE was the release of the Purple Book in 2018 - A comprehensive report on **‘Strategies & Best Practices for Attracting, Developing & Retaining Women in STEM & Energy Sectors in Malaysia’** strongly adopted by 25 organisations across the energy sector.

Six years have passed, and MyWiE has been proactively expanding its platform by incorporating more women’s networks under one umbrella. This includes the recent addition of the ExxonMobil Women Interest Network (MyWIN) and ConocoPhillips’ Malaysia Women’s Network (MYWN). Through collaborative efforts and knowledge-sharing events, such as the Women in Energy Reception and the Women Leadership in Energy Forum, MyWiE has created spaces for dialogue, the exchange of best practices, and collective empowerment. In 2023 and 2024, MyWiE has spearheaded several impactful initiatives⁹ including:

- **#EmbraceEquity Event (March 2023):** Held in collaboration with SWAN, this International Women’s Day celebration brought together 100 participants to discuss equity in the workplace.
- **Women in Energy Conference (August 2023):** Co-hosted with the U.S. Embassy Kuala Lumpur, the conference drew over 120 women professionals and included prominent speakers like U.S. Ambassador H.E. Brian D. McFeeters.¹⁰
- **Women Leadership in Energy Forum (December 2023):** Supported by the Ministry of Economy and co-hosted with WeGo MOGSC, this forum explored the theme “Diversity & Inclusivity for a Just Energy Transition,” featuring leaders from across Malaysia’s energy landscape.

- **Fuelling Women in Energy (September 2024):** Serve as the first D&I session organised in conjunction with the Oil & Gas Asia (OGA 2024). This event is designed to review and assess the journey of D&I implementation across the energy sector, guided by the MyWiE Purple Book.

Leading as the Secretariat of MyWiE under the current leadership of Abdul Aziz Othman, President of MGA, MyWiE today continues to grow and propel to new heights. Guided by 12 prominent and experienced Council Members from across the gas value chain companies, each bringing a wealth of expertise in various aspects of the energy sector, MGA’s leadership ensures a comprehensive and strategic approach to diversity and inclusion in Malaysia’s energy landscape.¹¹ Its contributions extend beyond advocacy, encompassing policy influence, stakeholder engagement and educational outreach. MGA’s participation in National level committees such as the 12th Malaysia Plan (RMK12), National Energy Policy (2022-2040), National Energy Transition Roadmap (NETR), Hydrogen Economy Technical Roadmap (HETR), Malaysia’s Climate-Related Policies and many more underscores its commitment to shaping policies that support diversity. Additionally, its annual outreach programmes, like the Programme on Energy Sustainability, Transition and Insights to Graduate Engineers (PRESTIGE) established in 2008 and the Energy & Environment Programme (EEP), inspire students in various levels to pursue STEM careers, fostering the next generation of energy professionals.¹²

As the energy sector transitions towards sustainability, the inclusion of diverse perspectives has proven essential for driving innovation and strengthening decision-making processes. By championing gender diversity, MyWiE and MGA are not only enhancing workforce dynamics but also shaping a more inclusive and resilient energy industry.

The publication “Women in Energy: Pioneers, Innovators, and Change Makers in Malaysia” celebrates the extraordinary contributions of women in this evolving sector. It emphasises the significant impact of MyWiE as a strategic blend of advocacy, empowerment, visibility, and support for sustainable growth. The publication highlights their achievements as leaders, innovators, and changemakers, offering inspiration and insights into how diversity can transform the future of energy in Malaysia.

6. World Bank, Tracking SDG 7, 2021, <https://trackingsdg7.esmap.org/>

7. World Bank, Toward More and Better Jobs for Women in Energy, 2022, <https://documents1.worldbank.org/curated/en/09981130622220953/pdf/IDU0864241720fd0>

8. World Bank, The Energy Transition Fueled by Women’s Participation adn Leadership, February 2023, <https://blogs.worldbank.org/en/energy/energy-transition-fueled-womens-participation-leaders>

9. Malaysia Gas Association, Annual Report 2023

10. US Embassy Kuala Lumpur Facebook, 2023, <https://www.facebook.com/usembassykl/posts/at-the-women-in-energy-conference-co-hosted-by-the-us-embassy-and-malaysian-wome/684683500365375/>

11. <https://malaysiangas.com/council/>

12. BERNAMA, 16 Nov 2024, <https://bernama.com/en/news.php?id=2364067>



**Hazli Sham
Kassim**

Past President of the
Malaysian Gas Association
(MGA)

Building MyWiE: MGA's Strategic Move to Empower Women in the Energy Sector

MyWiE was born from the enthusiastic response of the participants at the inaugural Forum on Women in Energy (FoWiE) that MGA organised in 2017.

At that time, I was serving as the President of the Malaysian Gas Association (MGA), and our then Secretary General presented the proposal to hold FoWiE to the MGA Council.

The Council quickly recognised the importance of promoting gender equality awareness within the energy sector. It was also around this time that several MGA member companies began establishing women's network for this very purpose. Perhaps because the Council at the time was all-male, this realisation took on an even greater significance.

I was deeply impressed by the passion and enthusiasm

shown by the participants at FoWiE 2017. Their energy and commitment to the cause inspired the MGA Council to not only continue supporting the promotion of gender equality but also to lead by example.

This momentum led to a landmark decision at the 2018 Annual General Meeting, where two women leaders were elected to the MGA Council, with Seah Suying appointed as the first-ever woman Vice President of MGA.

Another significant milestone following FoWiE 2017 was the establishment of Malaysia Women in Energy (MyWiE) in 2018. I was thrilled that one of our MGA Council Members, Zahid Osman, volunteered to chair MyWiE's advisory panel.

Zahid's commitment ensured continued support from MGA, with the association even providing the Secretariat for MyWiE, guiding and nurturing the platform through its early stages. I am especially grateful to Zahid as well as to the women's networks from among MGA members such as PLWN and SWAN, for keeping the momentum alive following FoWiE 2017.

In 2018, FoWiE marked another significant milestone with the launch of the "Purple Book" at the event. Officiated by Minister YB Puan Yeo Bee Yin, the launch was attended by leaders from major energy companies in Malaysia. The recommendations in the Purple Book became a key focus for the sector. In fact, during the MyWiE CEO Roundtable in 2021, we found out that many of the recommendations from the Purple Book had been adopted by companies across the energy sector, with impressive results.

MyWiE has become a vital platform for like-minded advocates of gender equality to come together, network and, generate ideas to improve the workplace and create a level playing field.

Through my involvement as Lead for Signature Programme 2 at PLWN, I have witnessed firsthand the positive impacts of MyWiE's collaborations, particularly at PETRONAS.

I believe MyWiE should continue to serve as the key networking platform for women's networks in energy companies, further enhancing its visibility as the leading advocate for gender equality within the energy sector. Thanks to MyWiE and the women's networks, we are nurturing a strong pipeline of future women leaders in this field.

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It has been an honour and a privilege to have played a role in MyWiE's remarkable journey from FoWiE 2017 to where we are today. The progress is clear – with more women now occupying key leadership roles across the energy sector. I am proud of the impact MyWiE has had, and I look forward to its continued success in shaping the future of women in energy.”



Zahid Osman

MyWiE Chair
President & Group CEO
MISC Berhad

A Journey of Allyship and Empowerment in Energy

Looking back, the founding of MyWiE in 2018 feels like one of those pivotal moments where everything fell into place. At the time, I served as a Council member of the Malaysian Gas Association (MGA). When the past MGA President & Secretary General proposed the idea of forming an advocacy group for women in energy, it wasn't just an opportunity, it was a call to action. They trusted me to champion something I deeply believed in – equal opportunities for women in our energy industry.

From the outset, I saw the passion and potential for change. MyWiE wasn't just about giving women a seat at the table, it was about empowering them to lead, push boundaries and reshape the future of the industry.

I said “yes” because I understood that Diversity and Inclusion (D&I) aren't just lofty ideals; they are necessities for a thriving industry. The energy industry, like any other, can only truly progress when everyone has the opportunity to contribute, regardless of gender. However, this does not mean compromising on merit. MyWiE has always been clear that women must thrive based on their skills and qualifications, not quotas – ensuring that true meritocracy is at the heart of the industry's growth.

The more I thought about it, the more I realised this wasn't about me leading the way, it was about creating a platform for those who would follow. MyWiE was never meant to be a one-time initiative; it was intended to be a movement – a

legacy that would outlast us and continue to empower future generations of women in energy.

The Role of Male Allies in Diversity & Inclusion (D&I)

In a male-dominated industry like ours, it's easy for the conversation around D&I to become one-sided. I am proud to champion MyWiE as one of the male allies, whose role is beyond being passive supporters. It's not enough to simply agree with the cause. We need to actively challenge the status quo and use our influence to drive real change. I knew from the start that if we were truly going to move the needle, it couldn't just be women advocating for themselves – it had to be all of us.

Being a male ally hasn't always been easy. I've had to confront my own biases, reflect on how I've been conditioned by the industry and evaluate the spaces I occupy. But it was through those moments of discomfort that I learned the most. If we want change, we must take responsibility for our part in the system, even when it's uncomfortable. In my experience, that's when the real change happens. True allyship isn't a checkbox – it's an ongoing commitment.

Diversity & Inclusion as a Foundation for Industry Innovation
At MISC Berhad, where I now serve as President & Group CEO, I see the benefits of diversity every day. Our teams are more agile, our solutions more creative and our ability to adapt in a rapidly changing world has been strengthened because we embrace diverse perspectives. The same applies to the energy industry as a whole. Diversity doesn't just add value, it is the catalyst for innovation. Without it, we risk stagnating – unable to adapt to new challenges or seize emerging opportunities.

MyWiE has played an instrumental role in shifting the narrative around women in energy. But it's not just about bringing more women into the conversation, it's about creating a ripple effect across the entire ecosystem. When we include more voices, particularly those of women, we make the industry more resilient and stronger. The challenges we face in the industry today – from sustainability to digital transformation – demand that we think differently, work differently and collaborate across industries. This can only happen if we encourage diverse talent to take the lead.

It's not enough to have women in the room; we need them at the table, in leadership roles, driving strategic decisions. And importantly, their advancement must always be based on merit, ensuring that leadership and success are determined by skill, knowledge and capability. I believe MyWiE's approach to diversity and inclusion has set the groundwork for a more equitable, innovative and future-ready sector.

Building the Future of MyWiE Together Driven by the Young Leaders

Looking ahead, I am more excited than ever about the future of MyWiE which lies in the hands of the next generation. Those of us in this pioneering generation can only do so much. The real drivers of change will be those who follow. The future

of MyWiE and of gender inclusion in energy, will depend on how well we prepare and empower young leaders today.

My vision for MyWiE isn't just about maintaining momentum, it's about ensuring that it remains relevant, vibrant and impactful for the next 20, 30, and even 50 years. To do this, we need to ensure that the voices of young women and men alike are at the forefront. We must build a strong foundation of mentorship, education and leadership development so the next generation doesn't just inherit the work we've done. Ideally, they should build on it and take it further than we ever could.

Six years have passed, and I feel immense pride in how far we have come. But I am even more excited about what lies ahead. The future of MyWiE, and gender inclusion in energy, will depend on the actions we take today and the leaders we empower tomorrow.

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The energy industry's most valuable resource is its people. By championing gender inclusion, we open doors to fresh perspectives, new ideas and greater resilience. Allyship isn't just a responsibility, it's a strategic advantage for us all.”



Rosman Hamzah
Past Secretary General
MGA

MyWiE: A Transformative Journey to Empower Women in the Energy Sector

A few months into my role as MGA's new Secretary General, I observed that several energy companies had established women's networks. Still, there didn't seem to be a formal platform to connect these networks. I strongly believe that it would be beneficial for women working in the energy sector if MGA organised an event to discuss the challenges women face in progressing in their careers.

I was grateful that the MGA Council supported this proposal. With the collaboration of PEMANDU Associates (thanks to Ilham Suhanji for her contagious passion) and the hosting support of Oil & Gas OGA2017 (thanks to Alun Jones for providing the complimentary venue), MGA successfully organised the first Forum on Women in Energy (FoWiE) in 2017.

I envisioned FoWiE as a catalyst for women in the energy sector to come together, network and, ideally establish a common platform for collaboration, advocacy, and further networking. To my delight, the response to FoWiE 2017 was overwhelming. Weeks after the event, participants eagerly anticipated what would come next.

This continued enthusiasm encouraged MGA to bring together the supporting organisations of FoWiE and the women's networks from various energy companies. The meeting was a turning point, and I was pleased to see my vision of creating a common platform become a reality with the establishment of Malaysia Women in Energy (MyWiE).

Since MyWiE's formation, numerous activities have been organised, including subsequent FoWiEs and awareness talks. It was inspiring to see the women's networks step forward to organise and even sponsor MyWiE events, demonstrating their commitment to advancing the equal opportunity agenda in the energy sector.

For me, the most notable and impactful achievement by MyWiE was the release of the Purple Book in 2018. Not only did it contain recommendations that could be practically implemented within companies, but it was also the result of collaboration among more than 25 different organisations.

Coordinating the three workstreams that contributed to the Purple Book was no small feat. Credit goes to Murni Shariff for her unwavering dedication as the project's Secretariat.

The Purple Book was presented to leaders from several major energy companies at FoWiE 2018 for adoption. During the MyWiE CEO Roundtable in 2021, these companies confirmed that most of the recommendations had been adopted and were showing positive results.

Through the establishment of internal women's networks, companies demonstrate their commitment to improving equal opportunity, particularly in leadership roles. These networks play a crucial role in advocating for an equitable workplace, enhancing leadership opportunities, and developing a growing pipeline of female leaders within their respective organisations.

MyWiE has played an essential role as the link and platform that enabled these networks to connect and collaborate. As a result, more companies and organisations have established women's networks, further expanding the MyWiE fraternity.

In forming MyWiE, I envisioned that it should represent the entire energy sector, not just the oil and gas (O&G) sub-sector. The traditional boundaries between the O&G and power sub-sectors have blurred, particularly as more O&G companies diversify into the power sector, especially into renewable energy. The talent and expertise required in both sub-sectors now have more in common than differences, making career transitions between the sub-

sectors seamless. As MyWiE welcomes more women's networks from both sub-sectors, it can truly become the most comprehensive and representative voice for all women in energy.

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Today, MyWiE has firmly established itself as an important platform for women's networks to jointly advocate for equal opportunity in the energy sector. I am proud to have played a pivotal role in its creation and honoured to have been at the forefront of its efforts. Embedding a culture of equal opportunity in the workplace is essential for fostering a positive work environment, attracting and retaining talent, and driving organisational success. The positive progress seen in the energy sector today stands as a testament to the impactful and effective advocacy by MyWiE.”



Datuk Zunaidah Idris

MyWiE Advisory Panel,
Founder of Women
Leadership Foundation
(WLF)

A Visionary Leader Driving Change in Women's Leadership Across Multiple Sectors

With over 30 years of experience in investment banking, I have built a career that spans various pivotal financial sectors, including treasury management, bond trading, money markets, share trading, and equity investments.

My journey has been shaped not only by technical expertise but also by my passion for strategic leadership and developing others, particularly women

in traditionally male-dominated sectors such as finance and energy.

Starting my career in treasury management, I quickly rose through the ranks, mastering complex financial strategies. During my tenure as Senior Vice President at Hong Leong Investment Bank (HLIB), I had the privilege of driving key initiatives and shaping corporate strategy while nurturing

young talent. My leadership philosophy, centred on mentorship and empowering others, particularly women, remains one of my proudest contributions to the finance industry.

Recognising the need for greater diversity in leadership, especially within the energy sector, I was honoured to join the Malaysian Gas Association (MGA) Council. This appointment marked a pivotal moment in my commitment to advancing women in leadership. Later, I was nominated to serve as a key member of the Advisory Panel for Malaysia Women in Energy (MyWiE), where I continue to champion gender equality and empower women within the energy sector.

As an advisor to MyWiE, I have contributed to shaping the organisation's mission of creating a more inclusive energy sector where women thrive in leadership roles. My focus has been on supporting various initiatives and offering guidance to ensure the organisation achieves its goals.

One of my most fulfilling contributions has been leading the creation and implementation of the Leadership Accelerated Mentoring Program (LAMP) through the Women Leadership Foundation (WLF). As the head of the Leadership Pillar at WLF, I spearheaded LAMP to accelerate the development of women leaders in the energy sector. The programme strengthens leadership skills, enhances emotional intelligence, and fosters resilience – attributes which are critical for women with aspirations to take on senior leadership roles.

The success of LAMP has been transformative. Women from leading energy companies such as Shell, Petronas, Sarawak Energy, PETROS, and TNB have benefitted from the programme. By enhancing leadership competencies and providing networking opportunities, LAMP has empowered women to break barriers and rise to new heights in their careers. It has also fostered a more inclusive leadership landscape, ensuring women have a seat at the decision-making table. Thank you to WLF Founders, Mentors, BOT and Team for a successful LAMP initiatives.

Through LAMP, I have worked to build a strong and supportive network for women in energy. This network has been a catalyst for fostering empowerment, boosting confidence, and enabling women to overcome challenges and achieve leadership roles within their organisations.

My efforts have not gone unnoticed. I am deeply gratified to see the impact of mentorship and advocacy in breaking barriers for women in industries like energy and finance. As a member of MyWiE and WLF, I remain committed to pushing for systemic change by advocating for policies and initiatives that create a level playing field for women in leadership.

Shaping the Future of MyWiE

Looking ahead, I envision an even more inclusive and dynamic future for MyWiE. Working alongside young

champions like Nabilah Zulkefli, I aim to extend the reach of initiatives like LAMP, ensuring more women in energy have access to mentorship and professional development opportunities. By equipping women with the tools, insights, and confidence they need; we can drive transformative change across the energy sector.

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The essence of Sustainable Leadership lies in Purpose fueling your Direction. Values driving your actions Fulfillment energising your resilience and Empowering others as your Ultimate Goal”



Datuk Rodziah Zainudin

Associate General Counsel
Gas-to-Liquids & Head of
Legal, Qatar Shell
MyWiE Champion
Shell Women Action
Network (SWAN)

Leading Change in the Energy Sector: Founding MyWiE to Empower Women

When I returned as Head of Legal, Shell Malaysia in July 2017, after several years abroad; I also took on the role of Shell Women Action Network (SWAN) President. It was during this time that I attended the Forum of Women in Energy (FoWiE) 2017, organised by the Malaysian Gas Association (MGA). Witnessing the overwhelming response from participants, I realised there was a glaring gap – lack of a unified platform

for women in the energy sector to network and drive initiatives that would enhance the working environment and development for the female workforce in oil and gas industry.

Inspired by the passion and potential I saw that day, a small group of us – Emy, Murni, Rosman, and I – decided to take action. We collaborated with like-minded organisations,

including PEMANDU, Lead Women, the 30% Club, and CnetG; investing our personal time to turn our vision into reality.

In 2018, at the next FoWiE, I had the privilege of delivering the keynote address to launch MyWiE (Malaysia Women in Energy). That moment stands as one of the proudest highlights for me, marking the beginning of a movement that has driven meaningful change in the industry.

Building the Foundation: The Purple Book and the Power of Collaboration

From the outset, collaboration has been the lifeblood of MyWiE's success. Together with industry players and organisations focused on female leadership, we developed strategies to address the specific needs of women in energy. These efforts culminated in the Purple Book, which outlined the objectives and scope of MyWiE. It was a blueprint built on insights gathered through a survey and a series of workshops, which explored women's ambitions for leadership and identified the support systems required to help them thrive.

The Purple Book not only provided companies with a practical framework to adopt best practices efficiently but also positioned MyWiE as a thought leader in advancing women's leadership in the energy sector. By sharing Shell Group's own Diversity, Equity, and Inclusion (DE&I) policies, we demonstrated how DE&I can drive creativity, innovation, and better business performance. This collaboration created a ripple effect, with other organisations adopting similar approaches to improve their employee value propositions and enhance retention.

I have always believed that change must start at the top. We ensured attendance of the CEOs and directors from across the industry to the Purple Book launch, underscoring that senior management buy-in is essential for sustained effective and lasting change.

Transforming the Future of Energy: MyWiE's Enduring Legacy

MyWiE has laid critical groundwork to ensure the energy sector becomes a more inclusive and supportive environment for women leaders. By anchoring our efforts on four strategic pillars (outlined in the Purple Book), we've helped organisations across the industry recognise the tangible benefits of investing in gender diversity.

The energy transition presents new challenges, but it also offers unprecedented opportunities for women. Trends like decarbonisation, renewable energy adoption, and the integration of AI and smart grid technologies are reshaping the sector. These developments demand innovative thinking, collaboration, and a commitment to sustainability. With the higher number of female technical graduates joining the workforce, policies that can attract and retain them would be essential.

Looking ahead, MyWiE must continue evolving to meet these

challenges. The industry needs to institutionalise Diversity, Equity, and Inclusion by embedding it into business plans, measuring progress through clear goals, and identifying barriers to inclusion. MyWiE's unique, non-competitive position allows it to engage with stakeholders across the energy ecosystem, fostering collaboration, sharing best practices, and benchmarking progress.

Sustaining Diversity, Equity, and Inclusion for Future Generations

The journey towards greater Diversity, Equity, and Inclusion is far from over. When we founded MyWiE in 2018, we referred to McKinsey's Women in the Workplace 2015 report, which revealed women held only 17% of C-suite roles. Today, that number has grown to 29%, but progress remains uneven. Future leaders of MyWiE have a critical role in continuing to make the case for DE&I – demonstrating its value, and providing the building blocks for efficient replication across companies.

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“I intentionally applied to Shell in 2000 as it was the first oil and gas company to publicly introduce a “Work-Life Balance” policy, an employee value proposition that resonated deeply with me as a young mother. Two decades on, I am more convinced than ever that Diversity, Equity, and Inclusion is not just a business imperative — it is the foundation for securing high performance from all employees, regardless of gender.”

Creating a truly inclusive culture requires every level of an organisation to move together. It's not enough to listen; we must act— with courage, curiosity, and care. That is how we build an energy sector where everyone, particularly women, can grow, contribute and lead effectively.



Seah Suying

Past Vice President,
Malaysian Gas Association
MyWiE Champion
Shell Women Action
Network (SWAN)

The Vision for Driving Change in Diversity and Inclusion in the Energy Sector

Compared to other industries, the energy sector has one of the lowest rates of female representation globally. This stark reality ignited my passion to create a more inclusive energy sector in Malaysia – one that attracts, retains, and nurtures female talent. I have always believed in the business case for Diversity and Inclusion (D&I). Not only does it drive value and foster new opportunities, it also enhances decision-making and improves business performance.

I wanted to bring change to the industry, to create equal opportunities for women, and I believed that the best way to make a difference was to actively participate in the change process – even if it meant taking small steps at a time. This vision became especially significant when I was appointed the first female Vice President of the Malaysian Gas Association (MGA). This milestone not only marked a turning point in MGA's history but also

strengthened my resolve to champion gender equality in the energy sector.

The Power of Collaboration at MyWiE

When MyWiE was first established, its membership comprised only a handful of companies. Over the years, it has grown to include over 25 organisations spanning the energy value chain. Through MyWiE, D&I awareness has been actively promoted and discussed across various platforms, with companies sharing and celebrating best practices in D&I policies and culture. The Purple Book focus on three key areas, which are:

1. Attracting women to the energy/STEM sector,
2. Recruiting, retaining, and promoting women into leadership roles, and
3. Supporting women in top positions—has become a pivotal tool in shaping the conversation around gender diversity.

Over time, we have seen greater awareness and implementation of D&I considerations in government policies as well as in the practices and cultures of member companies.

There has been a noticeable shift towards more inclusive work environments, with initiatives such as flexible working arrangements and increased support for childcare and parental leave benefiting both women and men. More women are now competitively advancing into C-suite roles and board positions.

However, while progress is evident, there is still much work to be done. The journey towards workplace equality is ongoing, with countless opportunities for growth and improvement.

The Future of MyWiE

Looking ahead, I believe MyWiE must continue to emphasise that D&I is not only a moral imperative but also a strategic business advantage. The platform should promote the sharing of best practices among companies, highlight role models who have made significant contributions, and encourage industry leaders and government bodies to engage in ongoing discussions about D&I. By doing so, MyWiE can further catalyse change and support the creation of a truly inclusive energy sector.

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Looking back, it's incredible to see how a few seemingly small conversations at a KLCC restaurant and in office meetings, driven by a handful of passionate individuals, gave birth to such a significant vision. It's astounding how aligned we were in recognising the challenges we faced, how convinced we were about the opportunities the industry had overlooked, and how overwhelmingly supportive the leaders were of this mission. What made it all possible was that we came together and engaged — and that, in essence, is the spirit of MyWiE.”



Murni Shariff

Past Head of Corporate Services, Malaysian Gas Association & MyWiE Champion

Diversity & Inclusion to Generate More Women In Power

The energy industry has long been male-dominated even when women bring a much-needed perspective to the table. Their insights, observations and firsthand experiences are vital in ensuring checks and balances within the industry. Despite this, the number of women holding high leadership positions has remained scarce, and there have been significant challenges in attracting and retaining women in technical roles. So, what are the underlying issues? What interventions are needed? Are there high-level policies or standards that define what an inclusive organisation looks like?

The Malaysian Gas Association (MGA) consists of both large and small organisations. While industry giants like PETRONAS, Shell, and ExxonMobil had already begun implementing Diversity and Inclusion (D&I) programmes, many MGA members were still in the early stages of D&I initiatives. This gap led to the formation of MyWiE, providing a platform for like-minded organisations to connect, share best practices and promote more inclusive workplaces within the industry. How It All Began: The Bold Step

Back in 2018, diversity and inclusion were still a new

concept for many, and employees, especially women, were curious about how they could benefit from a more diverse workplace. However, aside from a few organisations, no one was taking significant steps toward implementing D&I practices. In response, MGA, with the support of its Councils and members, boldly took the initiative to create MyWiE, setting clear objectives, scope and deliverables as outlined in the Purple Book.

From my years of observation and involvement in facilitating MyWiE since its inception, I have seen that MyWiE is not just a platform with strong leaders and advocates from across the industry (it was, after all, officiated by a Minister). More importantly, MyWiE has consistently “walked the talk” – working tirelessly and intelligently, despite limited resources such as funding and manpower, to drive key initiatives year after year.

Since its formation, I am proud to see how MyWiE has grown. Some of the notable achievements include the launch of the Purple Book, which set out clear objectives, a roadmap for progress and recommended D&I best practices. The group has built a strong leadership team from energy companies across the industry and empowered cross-industry collaborations, working with agencies like TalentCorp, women’s circles like Lead Women and other D&I-friendly organisations. MyWiE has proactively organised its annual D&I Forum, meetings and workshops to connect, set new standards, challenge the norm and give women a platform to speak up. These initiatives have allowed MyWiE to continually update and improve the strategies and best practices outlined in the Purple Book.

But how did MyWiE succeed in raising awareness about its existence and mission? Firstly, MyWiE’s leaders opened doors, offered opportunities and made key connections within their organisations, allowing others to observe, learn, and apply best practices for fostering inclusive workplaces.

In typical circumstances, this would have been challenging, as D&I initiatives are generally considered HR-related and often classified as P&C matters. However, MyWiE’s leaders and subject matter experts (SMEs) from their organisations were deeply committed to strategising and executing MyWiE’s key deliverables, including the development of the Purple Book. They engaged with Ministers, CEOs, C-suite leaders, top executives and government officials to secure support and gain valuable insights.

Despite having virtually no budget in the beginning, MyWiE had to be creative and self-sustaining. The dedication of MyWiE’s leaders played a crucial role in opening doors, providing connections and ensuring the platform operated as efficiently as possible. This is where industry collaboration proved to be indispensable.

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As I reflect on MyWiE’s journey, I am incredibly proud to see how far MyWiE has come. We have laid a strong foundation, and the future looks brighter than ever. MyWiE’s continued success relies on the collective efforts of passionate leaders, both women and men, who are committed to fostering a diverse and inclusive energy industry.”



Fadzleen Md Hanipah

MyWiE Champion
Shell Women Action
Network (SWAN)

Shaping the Future of Diversity and Inclusion in Energy

Bridging Internal Dynamics with Industry Evolution

MyWiE has been a transformative force in Malaysia's energy sector, connecting internal company dynamics with the broader industry landscape. It's not just about driving diversity, equity, and inclusion (DE&I) for the sake of it. It's more about realising how DE&I strengthens both business outcomes and human capital development. It's also about creating a workplace and an industry that genuinely values all contributions, from the boardroom to the field. During MyWiE's formative years in 2018, I had the privilege of

being part of the foundational team. We worked on crafting programs that encouraged industry players to adopt and adapt successful DE&I practices.

Instead of starting from scratch, the idea was to build on what already worked, creating a shared playbook for driving progress.

Now, my focus is on sustaining this momentum by showcasing how these principles translate into tangible action and meaningful results.

Lifting Emerging Leaders

One of MyWiE's most powerful contributions is how it bridges the gap between seasoned leaders and emerging talent. By connecting us with those who've already broken through barriers, it offers invaluable lessons and inspires confidence. These leaders don't just tell us what's possible, they show us through their journeys.

This mentorship has been a source of motivation for me, reinforcing the idea that DE&I is more than a corporate agenda – it's about fostering environments where everyone can thrive. Seeing how this network supports emerging leaders demonstrates the power of shared stories and collaborative growth.

Carrying Forward the Legacy

The foundation laid by MyWiE's current leaders is solid, but it's up to the next generation to carry the torch. DE&I isn't just a nice-to-have – it's essential for the long-term sustainability and innovation of the energy sector. By embracing inclusivity, the industry can grow in ways that benefit not just the companies involved but also the communities they serve.

My vision for MyWiE is to strengthen its role as a unifying platform. By bringing together professionals, industry players, and policymakers, we can create a shared vision for the future. This collaborative approach is vital for driving systemic change and ensuring that DE&I becomes second nature in every organisation.

Adapting to Future Challenges

As the energy sector evolves, MyWiE must continue to adapt and stay relevant. The future will bring new challenges, but it will also offer opportunities to innovate and grow. By keeping an open mind and fostering collaboration, MyWiE can remain a driving force for progress, ensuring that diversity and inclusion are integral to the industry's success.

“

As part of the next generation of energy leaders, I'm all in for MyWiE's mission. We need to keep breaking down barriers, building inclusive workplaces, and staying ahead of the challenges. MyWiE is about more than just energy — it's about people, and I'm proud to be part of this journey.”



**Nabila Farhana
Zainal Abidin**

**MyWiE Champion
Petronas Leading Women
Network (PLWN)**

MyWiE: Championing Diversity & Inclusion for the Future of Energy

Joining MyWiE in 2018 at the age of 28 was a pivotal experience that reshaped my understanding of Diversity and Inclusion (D&I). Collaborating with inspiring leaders such as Siti Normaizan, Nurul Aula, and Murni on the MyWiE Purple Book – a comprehensive guide to attracting, developing, and retaining women in STEM and energy – gave me a first-hand insight into the real challenges and opportunities within the sector. This project underscored the need for intentional

strategies, cross-industry collaboration, and shared accountability to drive meaningful change. It deepened my appreciation of how grassroots efforts can create an inclusive future.

I see myself as a bridge between young professionals and established leaders, amplifying voices and facilitating action. I am deeply inspired by role models like Emeliana Rice Oxley,

the former PLWN Champion, who demonstrated how women can lead with impact, and Marina Md Taib, the current PLWN Champion, whose inclusive leadership continues to pave the way. Their unwavering dedication motivates me to lead with trust and conviction.

MyWiE has shown emerging leaders the transformative power of collective action. By connecting young professionals with seasoned industry veterans, it has nurtured a pipeline of diverse talent ready to take the helm. Personally, I have gained confidence, invaluable exposure, and opportunities to engage directly with decision-makers. Initiatives such as the Purple Book and gender diversity forums have reinforced my commitment to championing D&I as a long-term career focus.

MyWiE has been instrumental in shaping my career aspirations. Opportunities to co-develop strategies, moderate high-level panels, and collaborate with industry pioneers have provided me with unparalleled exposure. These experiences instilled in me the belief that passion and purpose transcend age. They also taught me that trust is a cornerstone of leadership – trusting oneself, earning the trust of others, and having faith in the collaborative process to deliver impactful results.

I am committed to supporting MyWiE by mentoring young professionals, sharing knowledge, and championing D&I initiatives across the industry. Leveraging my experiences, I aim to foster cross-industry collaborations, ensuring strategies remain adaptive to the evolving landscape of energy and STEM.

The next generation must approach D&I with intentionality and innovation. They should leverage technology to connect diverse talent pools, advocate for equitable policies, and ensure that D&I is embedded as a core business imperative rather than an afterthought. Storytelling, mentorship, and outreach programmes are crucial to keeping MyWiE's mission alive and relevant.

As the energy sector transforms, MyWiE must evolve alongside it. I envision MyWiE becoming a global platform that integrates sustainability with D&I, addressing emerging challenges such as digital inclusion and the future of work. Expanding its reach to underrepresented communities will ensure that every voice is heard, and no one is left behind.

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Empowering others is the ultimate act of leadership. MyWiE has shown me that when we lift as we climb, we redefine the future together.”



Nabilah Zulkefli

Head of Communications
for Malaysian Gas
Association & MyWiE
Champion

A Spark Ignited

When I first joined the Malaysian Gas Association (MGA) four years ago, I could never have imagined how much my journey would shape me, personally and professionally.

I came in with some preconceived notions about women in leadership. In my previous experiences in other industries, I had seen firsthand how female leaders were often stereotyped as “too emotional” or “too soft”. But as I immersed myself in supporting the Malaysia Women in Energy (MyWiE) initiative and engaging with the wider energy industry, I was welcomed by a team of accomplished women leaders who shattered those misconceptions. They were not only intelligent, strategic and steadfast but also supportive and compassionate; showing me that leadership is defined by much more than gender.

What struck me most was the profound impact of MyWiE in promoting, supporting and pursuing Diversity and Inclusion

(D&I) in the energy industry. MyWiE was established through the dedication and perseverance of committed individuals (particularly MyWiE Chairperson) as well as the unwavering support of several extraordinary male leaders.

I am deeply grateful to MGA's Past President and Secretary General who believed in me despite my non-technical background in corporate communications and my relatively new entry into the energy sector. Their commitment to fostering diversity and inclusion in the industry allowed me the space to grow my potential - something I will forever cherish.

Equally, the MGA's current President and Secretary General whose continuous encouragement pushed me far beyond my comfort zone. Without their belief in my abilities, aptitude and talents; I would not have had the opportunity to represent MGA on numerous platforms.

Their support has been invaluable in shaping my leadership path, and I am truly thankful for their belief and trust.

Additionally, my deep gratitude goes to Datuk Dr Yatimah Sarjiman for her tireless advocacy for diversity and inclusion at the Ministry of Economy, which has ensured MyWiE stays relevant and impactful in bridging the divide between policymakers and industry.

Datuk Zunaidah Idris has been there from the start, a constant source of encouragement to lead with ‘purpose’ during times when I felt uncertain. These remarkable women have not only inspired me but have profoundly shaped my leadership philosophy, reminding me daily of the power of ‘purpose-driven’ leadership; in perfect alignment with the Purple Book Best Practices on mentorship.

Purple Is The Colour of Progress

Reflecting on MyWiE's progress since the launch of the Purple Book in 2018, I am proud to see how mentorship and best practices have inspired more women to pursue a successful and rewarding career.

The Purple Book itself, which provides a clear path for diversity and inclusion, has been a powerful tool throughout my career journey. The lessons and guidance from these leaders are closely aligned with the principles laid out in the Purple Book. I've been indirectly mentored through their actions and support which has motivated me to contribute to MyWiE's success and to help others find their place in this evolving, inclusive space.

Over the past four years, I've learned that success in any field requires a diverse skillset, a winning mindset, a positive attitude, and proactive behaviours. No matter how hard or challenging the tasks at hand, if you put your heart and soul into your work and leverage the support network, doors will open, and everything you touch will bloom.

I am thankful to have said “yes” to MGA and the expanded role it has given me, including driving MyWiE forward. This journey has allowed me to represent MGA as the Regional Coordinator for Southeast & South Asia at the International Gas Union (IGU), a role that has broadened my perspective on both regional and global energy issues. In executing my duties and responsibilities, I had the opportunity to interact and work with some of the best industry experts and exemplary leaders; locally as well as globally. These valuable experiences are something I would not trade for anything.

I firmly believe the best is yet to come. I am excited about the future and the continued success of MyWiE. MGA and MyWiE have provided me the opportunity to learn from a diverse group of leaders – both women and men – something I never imagined possible. Working alongside such inspirational and visionary leaders has helped me refine my leadership philosophy, and I am determined to inspire and shape the next generation of leaders at MGA and give back to the industry as a whole.

As a young advocate within MyWiE, I am honoured to contribute to this growing legacy. MyWiE's future isn't just about honouring past achievements, it's about empowering the next generation to take the reins and ensure its continued growth. I am proud to step up, knowing that I am supported by both female and male allies, united in the vision of a diverse and inclusive energy industry where everyone, regardless of gender and background, can thrive.

Change is already happening, and we have the power to build on that momentum to create a future that benefits us all. MyWiE needs more women in energy to step forward, share their inspiring stories, and actively participate in the groundwork of its strategic initiatives. It's not enough to talk about change – we must walk the talk at every level. By engaging directly in MyWiE's efforts, shaping its narrative, and driving tangible actions, we can create a lasting impact that truly champions diversity and inclusion in the industry. MyWiE needs everyone, regardless of their position, to take real action, to ensure our voice grows louder, stronger and more influential with every step.

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When great women leaders are supported by strong male allies, we don't just talk about diversity and inclusion, we create it. The true power of MyWiE lies in the collaboration between great women leaders and their male allies. It's a reminder that gender equality isn't just a woman's issue, it's a cause for everyone. MyWiE's success is built on the vision of men and women who believe in the power of diversity. If a group of committed individuals can drive this change, imagine what we can achieve as an entire industry. The future is in our hands.”



Dr Marcella Lucas

Founding Member of
MyWiE & Founder & MD,
Lead to Innovate Pte Ltd

Pioneering Inclusion: The Legacy and Vision of MyWiE

When MyWiE was founded, the vision was to create a dynamic, inclusive, and supportive community for women in Malaysia's energy sector. The aim was to provide a platform where women could network, gain professional development, access mentorship, and increase visibility in leadership and technical roles. At its core, MyWiE was dedicated to advocating for a more gender-equal energy industry.

This vision was driven by the belief that gender equality and diversity are crucial for fostering innovation, efficiency, and growth in the energy sector. The founders were committed to raising awareness of Diversity and Inclusion (D&I); fostering professional growth, breaking systemic barriers, and celebrating female achievements in the field to inspire future generations.

Overcoming Early Challenges

The journey wasn't without challenges. The energy sector, historically male-dominated, presented barriers like limited female representation, ingrained biases, and a lack of role models. MyWiE had to establish credibility while engaging stakeholders from private companies and the Malaysian government.

Building a robust network was another hurdle. The founders worked tirelessly to connect women across technical, commercial, and operational roles, creating tailored initiatives to address their unique challenges. Convincing industry leaders to embrace D&I as a business imperative required advocacy and education, with early support from

companies like Shell, Exxon, and PETRONAS helping to drive momentum.

Inspiration to Champion D&I

As a STEM graduate with a background in Biochemistry and Neuroscience as well as the daughter of an oil and gas family, I was inspired to ensure the energy sector reflected diverse voices. I saw the opportunity to influence major corporates and extend this ripple effect across industries in Malaysia and globally. Meeting phenomenal women leaders in the sector further energised me to shape MyWiE into the impactful platform it is today.

Collaboration: The Driving Force Behind MyWiE

The collective efforts of MyWiE leaders have been instrumental in its success. By uniting women across the energy industry, the platform has championed systemic change, mentorship, and advocacy.

The launch of the Purple Book marked a significant milestone, providing a resource directory and practical guidance for career development, mentorship, and industry insights. Its influence has driven companies and the government to adopt inclusive policies, breaking stereotypes and promoting women in leadership roles.

Laying the Groundwork for Future Women Leaders

MyWiE has created a foundation that empowers women in the industry and ensures the next generation can thrive. Advocacy for gender-inclusive policies, such as family-friendly work arrangements and unconscious bias training, has transformed workplaces.

In 2021, alongside Raj Kumar Paramanathann, I co-led the MyWiE CEO Roundtable, bringing together leaders to discuss the findings of the MyWiE Scorecard. This initiative assessed areas like attracting women into STEM, retaining and promoting women, and increasing representation in leadership. The roundtable enabled companies at different stages of their D&I journey to share lessons and set tangible goals for greater equality.

Securing MyWiE's Long-term Impact

For MyWiE's goals to endure, diversity and inclusion must remain central to the energy sector's values. Strong partnerships with energy companies, policymakers, and educational institutions will be essential.

As the sector evolves, MyWiE should expand its focus to emerging technologies, sustainability, and energy transition. Engaging with the next generation through tailored programmes will ensure continuity and relevance.

I envision MyWiE becoming a powerful network led by future women leaders, shaping an industry where diversity is not an option but a cornerstone of success.

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At MyWiE, our mission is to empower women to lead and innovate in the energy sector. By fostering mentorship, advocacy, and collaboration; we've laid the groundwork for a more inclusive industry. The energy sector is at a pivotal juncture — it now must decide how it will evolve to stay relevant and impactful.”

Success will depend on leveraging the entire talent pool—both women and men alike. Our work is not just about gender equality, but about unlocking the full potential of the sector through diverse perspectives. The future of energy depends on diverse leadership, and I'm proud to be part of this transformative journey.” – Dr Marcella Lucas

Legacy in Championing D&I, Nurturing Tomorrow's Leaders in Energy.

The creation of Women in Energy: Pioneers, Innovators, and Change Makers in Malaysia has illuminated essential lessons for women striving to excel in the dynamic and often demanding oil, gas, and energy sector. The stories shared in this book are more than narratives – they are blueprints for success, grounded in resilience, value creation, and adaptability.

1. Resilience is Key

In an industry that demands both technical expertise and strategic vision, societal judgments and deeply ingrained stereotypes often add layers of complexity for women leaders. Yet, resilience – the ability to stand firm, adapt, and push forward despite these challenges – is the defining trait of those who rise to the top. Women who thrive in this sector embody a relentless drive to overcome obstacles, using each challenge as an opportunity to redefine the rules and break down barriers. Resilience is not just about enduring; it's about thriving, transforming adversity into strength, and proving that success is not confined by gender. Equally important is emotional resilience where one can take criticism and suggestions positively and objectively.

2. Value Beyond the Table

Leadership is not a designation; it is the ability to bring unique value and perspective to every situation. In a sector as complex as energy, where technological innovation, environmental concerns, and economic pressures intersect, the contributions of women have proven transformative. Women leaders who transcend traditional boundaries – be it through technical expertise, strategic insight, or fostering collaboration – are driving change. Their ability to challenge norms and offer fresh perspectives highlights the critical role women play in creating innovative solutions for a sustainable future.

3. Flexibility and Networking

The oil, gas, and energy sector are fast-paced, unpredictable, and ever-evolving. For women leaders, flexibility – the ability to pivot, innovate, and adapt to shifting circumstances – is a vital skill. Equally important is the power of networking.

Relationships built beyond traditional settings, such as the golf course or boardroom, foster collaboration, and open doors to new opportunities. At the same time, striking a balance

between professional ambitions and personal life remains a cornerstone for long-term success. Women who thrive in this sector understand the importance of being nimble while staying connected to their networks and support systems.

4. Women to Women

It is imperative that women should empower other women. This starts with fostering a culture where women support and lift each other up. When we help each other, we can break through barriers that might otherwise seem insurmountable.

5. Speak Up to Power Up

We can't move forward without exploring all opportunities, ideas and solutions. In this sense, we should and must create a comfortable environment where women are encouraged to speak up and not dismissed as the lesser voice. This has to start from top – Be the example and inspiration for change

6. "We" not "Me."

Collaboration, instead of competing, among women would strengthen our position in the energy sector. We are all important. We all have ideas and knowledge. We are equal. We all bring unique perspectives and experiences. And when we work together as one to provide solutions, we'll become a force to be reckoned with.

Lessons for the Leaders of Tomorrow

The women of the future must embody transformative and sustainable leadership. As the energy transition accelerates, the leaders we cultivate today must be bold, courageous, and innovative, capable of balancing growth with sustainability while navigating competing agendas. Women, as nurturers and community builders, are uniquely positioned to address widening gaps in equity and inclusion, fostering a "just transition" that prioritises people alongside progress.

In the face of global challenges such as climate change and energy security, women leaders will play a pivotal role in advancing Environmental, Social, and Governance (ESG) principles and the United Nations' Sustainable Development Goals (SDGs). These frameworks are crucial for addressing



the energy trilemma—balancing energy security, equity, and environmental sustainability. Increasing the representation of women in politics and decision-making positions is essential to fostering a comprehensive and inclusive approach to tackling these pressing challenges.

Strengthening Platforms for Collective Impact: Uniting Stakeholders to Champion the Women Agenda

The journey toward achieving a more inclusive energy sector—one where women stand as pioneers and changemakers—requires a collective commitment from all stakeholders. Ministries, agencies, regulators, operators, and industry networks must come together to champion the women agenda with purpose, synergy, and sustained action.

1. The Role of Ministries and Agencies

Ministries and agencies play a pivotal role in setting the tone for change. Women represent 50% of the nation's population, an untapped reservoir of skills, talent, and potential. By crafting policies, programs, and incentives tailored to harness these capabilities, they can empower women to take the lead in the energy transition. From implementing gender-focused initiatives to driving national strategies that prioritise inclusivity, these stakeholders must ensure that women are not just participants but key drivers in the growth of Malaysia's green, blue and silver economies.

2. Expanding and Strengthening Platforms

Platforms like MyWiE, PLWN, SWAN, SLWN, TWIeN, MOGSC WeGo are critical to advancing diversity and inclusion. These networks provide mentorship, advocacy, and opportunities for women to excel in technical, leadership, and entrepreneurial roles across the energy sector. To truly drive lasting change, these platforms must evolve and expand, fostering collaboration across industries and creating new pathways for women leaders to emerge.

A stronger, unified effort among these platforms can create a cascading effect, inspiring women to step into leadership roles and cultivating an environment where inclusion becomes the norm rather than the exception. This ripple effect will not only transform the energy sector but also inspire progress across Malaysia's broader workforce.

3. Synergy Among Stakeholders

To walk the talk, ministries, agencies, regulators, operators, and industry stakeholders must find common ground and act with shared purpose. This means going beyond individual initiatives to develop integrated strategies that support the growth of women leaders. Continuous action, strategic alignment, and resilience in the face of challenges are essential. Whether through joint programs, shared resources, or cross-sector mentorship initiatives, these efforts must prioritise tangible results that lead to the development of a critical mass of women leaders capable of driving Malaysia's sustainability agenda.

The Ripple Effect of Leadership

Imagine a future where every woman in leadership becomes a beacon, igniting a chain reaction of inspiration and progress. A future where their stories ripple outward, empowering countless others to rise, lead, and redefine what's possible. This is not just a vision—it's a responsibility we must all share.

When women lead, generations transform.

Their voices, decisions, and innovations drive progress across industries, strengthen communities, and shape the future of nations. By championing gender equity, we are not only promoting fairness but also unlocking the full potential of our society. Together, we can create an energy sector that is not only innovative but also equitable, inclusive, and enriched by diverse perspectives. With a shared purpose, we can align our goals and take collective actions to achieve them.



But this will not happen on its own. The work ahead is not easy. It requires bold action, relentless collaboration, and unwavering perseverance. Stakeholders across the energy ecosystem must commit to trying, failing, learning, and iterating. Systems, policies, and support structures must be built and rebuilt until they foster an environment where women can thrive and lead without barriers.

This is not a task for the few—it is a mission for us all.

Ministries, regulators, industry leaders, and communities must unite in their efforts, creating platforms and environments that place women at the forefront of driving Malaysia's transition to a sustainable future. Together, we can shape a legacy where women in leadership are no longer a rarity but a powerful force, steering the energy sector toward resilience, innovation, and equity.

Addressing Just Transition in COP 29

At COP29 in Baku, significant strides were made to advance gender equality as a critical pillar of climate action. The conference reaffirmed the importance of the Enhanced Lima Work Programme on Gender, extending it for another decade to promote gender-responsive climate policies. Additionally, a key decision was made to develop a new Gender Action Plan (GAP) by 2025, with adoption planned at COP30. This GAP aims to establish clear targets and financing goals to ensure that climate finance actively engages and benefits women and marginalised groups while upholding human rights. COP29 emphasised that achieving a just and equitable transition to sustainability requires inclusive leadership, particularly from women, to

address the disproportionate impacts of climate change on vulnerable populations.

The book *Women in Energy: Pioneers, Innovators, and Change Makers in Malaysia* responds directly to this call by showcasing the vital role women play in the energy sector. Through its profiles of women leaders, the book highlights how female participation drives innovation in renewable energy, decarbonisation, and energy efficiency—key components of a sustainable future. It serves as a blueprint for empowering women to take on leadership roles in climate action, aligning with COP29's agenda of fostering gender-responsive strategies and ensuring equal opportunities in decision-making processes.

The book also issues a powerful call to action by advocating



for mentorship, capacity building, and inclusive policies that enable more women to lead in energy and climate fields. By amplifying their contributions and creating role models, the book fosters greater diversity and inclusion, directly supporting COP29's vision for a just transition. It challenges stakeholders to collaborate, ensuring that women are not just participants but leaders in shaping sustainable solutions, reinforcing the shared responsibility of addressing climate change with equity and inclusivity at its core.

The Path Ahead: Carving New Legacies

This book is only the beginning. It's the first chapter of a much larger story that must continue to be written. We must spotlight the rising leaders of tomorrow, amplify the voices of the unheard, and celebrate the evolving contributions of women in the energy sector. Every story told carves a path for the next generation of leaders, ensuring their impact is seen, heard, and felt.

But stories alone are not enough. We must act. We must build systems that support, uplift, and propel women forward. We must demand accountability, foster mentorship, and create opportunities at every level of the industry.

Call to Action: The Time to Act is Now

The energy sector cannot afford to stand still. The challenges we face—from climate change to energy security—demand bold, inclusive leadership. Diversity, equity, and inclusion must become more than ideals; they must be the driving force behind every decision, every strategy, every goal.

Now is the time to act.

Let's unite our efforts. Let's build platforms that amplify women's voices and create environments where they can lead. Let's sustain the momentum and take bold, tangible steps to ensure progress. The future is waiting, and the time is now.



A Labor of Love



The final portion of this book stands as a tribute not only to the incredible women whose stories fill its pages but also to the tireless dedication of its Working Committee. This publication stands as the realisation of the vision and commitment of Datuk Dr Yatimah Binti Sarjiman, Deputy Secretary-General (Sectoral) of the Ministry of Economy, who initiated and championed this impactful project. Her foresight and leadership have been instrumental in turning this ambitious initiative into reality. Datuk Dr Yatimah also served as the Main Editor for this publication, ensuring its alignment with the overarching goals of the project.

The concept for this publication was inspired by the success of the MyWiE event in 2023, which underscored the pivotal role of women in Malaysia's energy sector. Recognising the importance of amplifying these contributions, special thanks to the Ministry of Economy and Malaysian Petroleum Resources Corporation (MPRC), an agency under its purview, for assisting and supporting this meaningful project.

Special acknowledgment is extended to Ilham Sunhaji, Head of Corporate Strategy & Research (MPRC), and a part of the MyWiE Advisory Panel, who served as both the Project Director and Co-Editor of this initiative. Her exceptional leadership, dedication, and editorial contributions were central to the success of this project. She was supported by a core team at MPRC, including:

- Noralea Adzhar: Whose meticulous project management ensured smooth execution.
- Shakinah Shirin: Who brought the stories to life through insightful interviews and compelling writing.
- Faresa Azmi: Whose event coordination was instrumental in meeting project milestones.

Together, their combined expertise and commitment ensured the seamless delivery of this publication.

Special thanks are also extended to the publication's entire committee members, who poured their most glamorous efforts and ideas during constructive weekly discussions to bring this project to life. These members include:

- Datuk Zunaidah Idris (MyWiE)
- Nabilah Zulkelfi (MyWiE)
- Nurul Aznin Mamat (Deleum Berhad, MyWiE)
- Fadzleen Hanipah (SWAN)
- Anita Perumal (TNB TWIN)
- Ilme Onn (MOGSC WeGO)
- Fern Raja Harris (MOGSC WeGO)
- Nabila Farhana Zainal Abidin (PLWN)
- Eda Rahayu Bakar (PLWN)

Their dedication, creativity, and collaborative spirit were pivotal in shaping this publication into a meaningful and impactful testament to the achievements of women in Malaysia's energy sector.

This endeavour was further strengthened by collaborative efforts with key partners, including PETRONAS Leading Women Network (PLWN), Shell Women Action Network

(SWAN), TNB Women in Energy Network (TWIeN), Sarawak Energy Leading Women Network (SELWN), Women in Energy, Gas and Oil (WeGO). Their collective support and contributions played a vital role in bringing this project to fruition.

We also gratefully acknowledge the strong support from MPRC, PETRONAS, Shell, Deleum Berhad, Tenaga Nasional Berhad (TNB), Aerodyne Group, and Eureka Efektif – whose support made this publication possible. Additionally, this effort was supported by the World Bank and the Department of Statistics Malaysia (DOSM).

A special mention goes to Fourseven Consulting for the design work and montage production.

The views, thoughts, and opinions expressed in this publication are solely those of the contributors and do not necessarily represent the views of their respective organisations, employers, committees, or any other affiliated entities.

This undertaking has been more than the sum of its parts. It is a celebration of collaboration, resilience, and the transformative power of unity. Together, this committee has shown what is possible when driven by a shared vision: a future where women and men stand shoulder to shoulder, shaping an energy sector that is not only innovative but also truly equitable.

Glossary and Abbreviations

ACE	ASEAN Centre for Energy	GTFS	Malaysia’s Green Technology Financing Scheme	NE	New Energy	SELWN	Sarawak Energy Leading Women Network
AELB	Jabatan Tenaga Atom Malaysia	GTP	Government Transformation Program	NETF	National Energy Transition Facility	SI	Summer Institute
APEC	Asia-Pacific Economic Cooperation	HETR	Hydrogen Economy Technical Roadmap	NETR	National Energy Transition Roadmap	SIGSES	Sarawak Integrated Sour Gas Evacuation System
APNE 2023	Asia Pacific Nuclear Energy 2023	HGHV	High Growth High Value	NGR	Natural Gas Roadmap	SMRs	Small modular reactors
AREVA	Formerly a French multinational in nuclear power and renewable energy, now reorganised into Orano (nuclear fuel cycle) and Framatome (nuclear reactors and services).	HLIB	Hong Leong Investment Bank	NIMP 2030	New Industrial Master Plan 2030	SPE	Society of Petroleum Engineers
ASB	Asia School of Business	IAEA	International Atomic Energy Agency	NOS-FG	National OGSE Framework Guide	STEM	Science, Technology, Engineering, and Mathematics
Atom Malaysia	Department of Atomic Energy Malaysia	IBNI	International Bank for Nuclear Infrastructure	NOS-P	National OGSE Sustainability Plans	SWAN	Shell Women Action Network
AYGN	African Young Generation in Nuclear	IETA	International Emissions Trading Association	NOS-R	National OGSE Sustainability Roadmap	TNB	Tenaga Nasional Berhad
BCX	Bursa Carbon Exchange	IGU	International Gas Union	NRES	Ministry of Natural Resources and Environmental Sustainability	TPA	Third Party Access
BEASSA	Environmental and Natural Resources Division	IMechE	Institution of Mechanical Engineers, UK	O&G	Oil and gas	TWiEN	TNB Women in Energy Network
CCS	Carbon Capture & Storage	KEPCO	Korea Electric Power Corporation	OGA	Oil & Gas Asia	UK	United Kingdom
CCUS	Carbon Capture, Utilisation, and Storage	KeTTHA	Ministry of Energy, Green Technology and Water	OGSE	Oil and Gas Services and Equipment	UKM	Universiti Kebangsaan Malaysia
CIDB	Construction Industry Development Board	KINGS	KEPCO International Nuclear Graduate School	OTC	Offshore Technology Conference	VC	Venture capital
CPIs	Carbon pricing instruments	KYGN	Kenyan Young Generation in Nuclear	P2P	Peer-to-peer	WeGO	Women in Energy, Gas and Oil
D&I	Diversity and inclusion	LAMP	Leadership Accelerated Mentoring Program	PCG	PETRONAS Chemicals Group	WIN	Women in Nuclear
DEI	Diversity, Equity, and Inclusion	LC	Lanthanide concentrates	PCSB	PETRONAS Carigali Sdn. Bhd.	WLF	Women Leadership Foundation
DOSM	Department of Statistics Malaysia	LTSF	Long-Term Storage Facility	PETRA	Ministry of Energy Transition and Water Transformation	WLF	Women Leadership Foundation
Edf	Électricité de France	MAVCAP	Malaysia Venture Capital Management Berhad	PICC	Putrajaya International Convention Centre	WLP	Water Leached Purification
EE	Energy efficiency	MCCG	Malaysian Code on Corporate Governance	PLWN	PETRONAS Leading Women Network	WNE	World Nuclear Exhibition
EEP	Energy & Environment Programme	MESTECC	Ministry of Energy, Science, Technology, Environment and Climate Change	PRESTIGE	Programme on Energy Sustainability, Transition and Insights to Graduate Engineers	WNU	World Nuclear University
ENEC	Emirates Nuclear Energy Corporation	MGA	Malaysian Gas Association	R&D	Research and Development		
ERIA	Economic Research Institute for ASEAN and East Asia	MGTC	Malaysian Green Technology and Climate Change Corporation	RBI	Risk-based inspection		
ESG	Environmental, social, and governance	MOGSC	Malaysian Oil & Gas Services Council	RE	Renewable Energy		
ETP	Economic Transformation Programme	MOSTI	Ministry of Science, Technology and Innovation	RECs	Renewable energy certificates		
EVs	Electric vehicles	MPRC	Malaysia Petroleum Resources Corporation	RMK12	12th Malaysia Plan		
F2P	Flare-to-Power	MTN	National Energy Council	RMK13	13th Malaysia Plan		
FiT	Feed-in Tariff	MyWiE	Malaysia Women in Energy	S&T	Science and technology		
FoWiE	Forum on Women in Energy	MyWIN	ExxonMobil Women Interest Network	SAG	Strategic Advisory Group		
GAP	Gender Action Plan	MYWN	ConocoPhillips’ Malaysia Women’s Network	SDGs	Sustainable Development Goals		
		NCET	National Committee on Energy Transition				

Women in Energy: Pioneers, Innovators, and Change Makers in Malaysia is a celebration of the incredible achievements of women who have shaped Malaysia's energy sector with their vision, innovation, and leadership. Inspired by the vision of Datuk Dr. Yatimah Sarjiman, Deputy Secretary-General (Sectoral) of the Ministry of Economy, this book seeks to shine a light on the untold stories of women whose contributions have transformed the industry and inspired progress.

The book features two empowering sections. The first highlights the journeys of 25 exceptional women leaders from various roles in Malaysia's energy ecosystem. These inspiring individuals, ranging from policy visionaries and industry innovators to pioneers in renewable energy and oil and gas operations, have driven meaningful change with their determination, creativity, and expertise. Their stories reflect not just professional success but also the resilience and strength that fueled their remarkable journeys.

The second section celebrates 11 MGA MyWIE champions, including male allies, whose unwavering commitment has advanced diversity and inclusion in the energy sector. These advocates have created opportunities, inspired innovation, and championed collaboration to build a stronger, more inclusive industry.

This book is a tribute to leadership, perseverance, and collaboration. It is a beacon of inspiration for future generations, encouraging everyone to embrace bold ambitions, challenge boundaries, and lead the way toward a sustainable and innovative energy future for Malaysia.

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