

# INTELLECTUAL CAPITAL

## INNOVATE TO REGENERATE

Our intellectual capital refers to our knowledge, skills, employee expertise, company systems, processes, and technology. With our extensive experience in developing and operating geothermal, wind, solar, and hydroelectric power plants, we accumulated valuable knowledge in various areas such as project management, engineering, and environmental sustainability. We also invest in research and development to enhance our technological capabilities and improve the efficiency of our operations.

Activities	Outputs	Value Created	Contribution to the SDGs	Risks
<ul style="list-style-type: none"> <li>• Board of Innovation (BOI) Accelerator Program</li> <li>• Endeavor Open Innovation</li> <li>• Global Innovation Management Institute (GIMI) Innovation Certification</li> <li>• 5-year Drilling Operations Program</li> <li>• Sweet Spot modeling</li> <li>• Purposeful Innovation Program</li> <li>• Integrated Management System Quality, Environmental and Safety Management Systems</li> <li>• Continuous Improvement Program</li> <li>• Asset Management</li> <li>• Natural Catastrophe Risk Management</li> <li>• DrillApp</li> <li>• Alternative Technologies (3D modeling, Online/Offline Dissolution)</li> </ul>	<ul style="list-style-type: none"> <li>• Enhanced Process Improvement, Reduced risks</li> <li>• Improved culture and behavior</li> <li>• Additional revenue and cost savings</li> <li>• Critical Asset Risk Register, Life Time Asset Plan, Asset Investment Plan</li> <li>• Digital technology for smart exploration, development, and utilization</li> <li>• Sustainable steam and effective reinjection management</li> <li>• Additional revenue from smaller power consumers</li> </ul>	<ul style="list-style-type: none"> <li>• Integrated EDC systems and processes</li> <li>• Advanced resource and steamfield management</li> <li>• Optimum and sustainable management of EDC assets</li> <li>• Optimized well design</li> </ul>		<ul style="list-style-type: none"> <li>• Asset owner governance inaccuracy</li> <li>• Data and resources projection</li> <li>• Climate change impacts</li> </ul>





## FROM ANALYST TO INNOVATOR FINDING GROWTH AND DEVELOPMENT AT EDC

*Carlos Gabriel Yaptinchay,  
Head of Innovation, Transformation Group*

I have been working at EDC for the past eight years. During my time here, I have held different positions in various departments, including Business/Commercial Analyst for the Leyte Geothermal Business Unit (LGBU) and Program Management Officer for the Program Management Office.

Currently, I am the Head of Innovation, where I work closely with different project managers, stakeholders, and sponsors to ensure the success of the Transformation program. My typical day includes meeting with various teams to conceptualize and plan different programs, conducting Case Team Meetings to challenge and improve ideas, and meeting with external partners for innovation.

What I love about working at EDC is the constant evolution and improvement. Over the years, I have witnessed many changes in organizational structure and

work processes. Agile ways of work have been adopted, cross-functional teams have become more common, and new tools and systems have been implemented.

At EDC, I feel that my development and growth are prioritized. The company cares about my well-being and always puts its employees first. This is why I choose to stay and work here. Every day, I face new challenges and changing roles, which allow me to grow personally and professionally.

To me, being regenerative means that nobody gets left behind. Everyone is a partner in our journey toward a more sustainable future. In my personal life, I try to reduce my carbon footprint by using reusable containers and bags, opting for public transportation, and supporting local businesses that prioritize sustainability. I believe that every little effort counts in positively impacting the environment.

We recognize that our intellectual capital is critical to our overall success. It enables us to innovate, improve efficiency, and maintain a competitive edge in the renewable energy industry. It is a crucial driver of our success and closely integrates with our other capitals. By leveraging our intellectual capital and other resources, we can continue our leadership in the renewable energy industry and contribute to a more sustainable future.

Our intellectual capital supports our socioeconomic compliance and enhances our overall corporate value and internal operations. Moreover, we consistently implement established

systems and regularly review and assess policies, ensuring they remain relevant and effective.

In addition, our intellectual capital plays a crucial role in upholding the EDC Customer Privacy system. We understand the significance of data privacy and its legal framework, so we prioritize respecting and protecting our customers' information. This approach is fundamental in building and maintaining the trust of our customers. By taking proactive measures to safeguard their data, we can foster a relationship of trust and mutual respect, which is vital to our success.



## OPERATIONAL HIGHLIGHTS AND STRATEGIES

The 5-year Drilling Operations Program (DOP) shows the planned activities to augment or maintain the steam supply of the company in the next five years. This may include drilling of new wells, workover of existing wells, and other non-rig workover alternatives. It is one of management's tools for ensuring that steam availability is aligned to EDC's generation targets. It is not enough that we ensure that steam is available—we also look at steam sustainability. Knowing what level of generation should be maintained in order to continue extracting from our steamfields is the objective of Sweet Spot studies. Starting with Leyte, the study was also replicated to the other geothermal sites. It has become integral in EDC's fuel strategy, focusing on resource health and predictability, given the long production history and present subsurface conditions in each field. Through Sweet Spot modeling, we can focus on key areas such as asset reliability and address risks related to injection security and steam decline. Insights from the Sweet Spot study are considered in generation outlook and helps identify what growth developments must be prioritized and incorporated into long-term contracting strategies.

Actenum is the platform used to capture end-to-end DOP processes and critical milestones. As our "single source of truth," it helps us establish a stable lineup, provide an implementation outlook of approved DOP projects, and track the cut-in of newly-drilled wells to ensure compliance with generation forecasts.

The Honeywell Forge Alarm Management aims to enhance our geothermal power plants' safety and operational performance. The platform provides real-time analysis and insights into alarm data, helping EDC to identify and address potential safety hazards before they escalate into serious incidents. In addition, Honeywell Forge Alarm Management could improve the operational efficiency of our geothermal plants. The platform's advanced analytics capabilities can help EDC identify and address issues causing unnecessary downtime, thereby enhancing overall plant performance.

As part of our enterprise transformation efforts, the EDC Purposeful Innovation Program aims to expand and diversify EDC's business by capturing innovations using new tools and practices. Moreover, it aims to provide a structured approach to innovation. EDC will leverage on internal and external resources to build new value for the company, enhancing our Intellectual Capital. Given that innovation is a new capability for EDC, it is essential to incorporate new skills and practices and establish processes and protective measures to mitigate potential risks. Innovation will enable EDC to develop new revenue streams and stay ahead of the competition. In 2022, EDC collaborated with various organizations, including the Board of Innovation (BOI), Endeavor, and the Global Innovation Management Institute (GIMI), to enhance its innovation capability.

**CONGRATULATIONS!**  
100% Passing Rate for  
Embiggen-GIMI Level 1 Innovation  
Certification Examination

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### EDC'S INNOVATION CAPABILITY RECOGNIZED BY GIMI CERTIFICATION

All EDC candidates passed the recent Global Innovation Management Institute (GIMI) Innovation Certification Examination. The exam aimed to test the candidates' understanding of innovation management concepts and their ability to apply them to real-world situations. The EDC joined the GIMI Innovation Certification program in 2022 as part of its Purposeful Innovation Program, which aims to enhance the company's innovation capability.

The program provides a structured approach to innovation, and partnering with GIMI allows the EDC to leverage globally recognized innovation management frameworks and best practices. The successful results of the recent certification examination demonstrate the EDC's commitment to building a culture of innovation and developing the skills and knowledge necessary to drive innovation within the company.

## MANAGING OUR RISKS AND EXPLORING OPPORTUNITIES

Effective management of geothermal resources require robust intellectual capital that has been developed and refined over many years of operation. Our Integrated Process Review (IPR) is a key tool that gives us a competitive advantage. To maintain our high standards, we periodically review our processes, monitor their implementation, and ensure data privacy and confidentiality when dealing with third parties. In addition to investing in training for software and licenses, we have established an internal audit group and document control teams to ensure compliance with our policies. Monthly reporting and internal and external audits are conducted to verify that we have followed protocols and have appropriate documentation.

To ensure effective monitoring, we have established a robust system that includes asset custodianship (property management) and data confidentiality contracts for software and licenses. These tools are critical to ensuring proper accountability and protecting sensitive data from unauthorized access. Our commitment to asset custodianship enables us to accurately track and manage our software and license assets, ensuring their appropriate use and maintenance. Additionally, our data confidentiality contracts help safeguard our intellectual property and sensitive information, protecting us from the risks of data breaches and cyberattacks.

EDC elevated its organizational processes and systems, reduced risks, and generated additional revenue and cost savings by integrating the Integrated Management System (IMS). EDC embedded the IMS in the company's business

processes, regularly conducts audits, and collaborates with Culture Workstream and Vertical CI governance for the execution of the Continuous Improvement Program. In Asset Management, the Reliability and Asset Integrity Management Group conducted and monitored the implementation under Facilities Operations and Maintenance. The maintenance and management of EDC's facilities were prioritized through a governance structure integrated into the end-to-end asset management framework.

We encounter organizational system risks, such as the inaccuracy of asset owner governance, which can lead to data and resource projection concerns. To address this, EDC promoted the importance of accountability and collaboration across the organization and implemented definitive work plans per facility. The company invested in alternative technologies, including 3D Gravity modeling software and a 3D magnetotelluric (MT) modeling software, that added value to its resource delineation activities and strengthened its operational capacity. The Natural Catastrophe Risk Management programs equipped EDC with Landslide Mitigation, Typhoon-proofing, and Earthquake-proofing Programs, which protect its assets and facilities.

In addition to the six existing cybersecurity measures, EDC launched another one in 2022.



EDC AND NUS:

### A POWERHOUSE PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT IN SOUTHEAST ASIA

In Southeast Asia, programs that use nature as a source of carbon have been picking up steam, although questions about their accuracy and long-term efficacy have surfaced.

To address this, Singapore's National University (NUS) announced it will spearhead a research initiative aimed at boosting the credibility of nature-based carbon projects in Southeast Asia. With EDC's partnership, the project aims to promote joint research and development activities of mutual interest and benefit in the area(s) of nature-based solutions for climate mitigation and adaptation by improving and developing methodologies and approaches for forest measurement, monitoring, reporting, and verification (M & MRV) to measure carbon sequestration in natural ecosystems accurately.

The SGD 15 million (USD 11.2 million) project comes when nature-based solutions are gaining popularity as an effective means of mitigating climate change. However, concerns over the accuracy of carbon accounting methods and the long-term effectiveness of these projects have been raised. The initiative seeks to address these concerns and help establish Southeast Asia as a leader in sustainable development.

EDC has been involved in nature-based solutions through its BINHI program across its project sites. Through the current collaboration with NUS, EDC aims to further explore the potential of nature-based solutions in addressing climate change.

## EDC AND ENDEAVOR PHILIPPINES HOLD JOINT OPEN INNOVATION PROGRAM

In 2022, EDC partnered with Endeavor Philippines, a global organization that selects, mentors and accelerates high-impact entrepreneurs for an Open Innovation Program.

Through the Open Innovation Program, EDC and Endeavor Philippines aims to:

- Incubate and scale growth opportunities adjacent to core business through external partnerships;
- Commercialize innovative solutions that are regenerative and customer-centric; and
- Build a culture of innovation that is outward thinking and tolerant of failure.

EDC and Endeavor Philippines selected three companies to participate in their joint Open Innovation Program. This initiative aims to support innovative startups and help them elevate their businesses. The program, launched in October 2021, received over 40 applications from different startups.

The three selected companies were Packetworx, Nanotronics, and iHandal. Packetworx is a Filipino technology company that specializes in Internet of Things (IoT) solutions. They provide end-to-end services for businesses and organizations looking to integrate IoT technology into their operations, including device management, data analytics, and cloud computing. Nanotronics, on the other hand, is a global technology company specializing in

advanced manufacturing and AI-powered microscopy solutions. Their technologies are used in semiconductors, aerospace, and life sciences, enabling customers to improve their production processes and product quality. Finally, iHandal is a Malaysian engineering company that provides solutions for the power and energy industry. They specialize in designing, building, and maintaining energy-related infrastructure, such as power plants, substations, and renewable energy systems.

The selected startups received support from EDC and Endeavor Philippines, including mentorship, training, and access to funding opportunities. The program helped scale up their businesses and enabled them to positively impact their communities. Currently, EDC is piloting the new H2S monitoring system from Packetworx in Negros.

As testament to EDC's drive towards innovation, last November 9, 2022, EDC won the Corporate Innovators of the Year. This was awarded by Endeavor Philippines during Endeavor Philippines' 8th Birthday Celebration at the Ayala Museum. This award is a testament to EDC's efforts in driving innovation on a corporate scale. It signifies that we are building partnerships with entrepreneurs and startups that support our regenerative and decarbonized mission.

### THE EDC- ENDEAVOR OPEN INNOVATION PROGRAM



**3 ENTREPRENEURS  
3 COMPANIES**

# EDC WINS GOLD, SILVER AWARDS AT ASIA SUSTAINABILITY REPORTING AWARDS

EDC struck sustainability gold and silver prizes at the 8th Asia Sustainability Reporting Awards—the most prestigious honors for sustainability and integrated reports.

EDC received three awards for its 2021 Integrated Report: one gold for the Asia’s Best Sustainability Report (CEO Letter category), a silver for the Asia’s Best Sustainability Report (Private Company category), and another silver for the Asia’s Best Integrated Report (Value Creation category). These accolades serve as a tribute to EDC’s dedication to sustainability and its efforts to tackle material sustainability concerns.

Rajesh Chhabara, founder of ASRA and Managing Director of CSWorks, stated, “EDC’s integrated report demonstrates its commitment to high-quality disclosure about how it manages material environmental, social and governance issues, risks and

opportunities to create sustainable value for its stakeholders.”

The CEO Letter category reviews top executives’ messages in sustainability reports from hundreds of Asian companies. Value creation assesses the positive outcomes of business activities over short, medium, and long terms. Asia’s Best Sustainability Report for Private Companies evaluates voluntarily released ESG reports on environment, social, and governance.

The honors are given to integrated and sustainability reports that exhibit excellent, value-creating reporting. An independent judging team selects the finalists and winners after a thorough evaluation process yields the winning reports. In addition to rating the report’s quality, the multi-tiered judgment procedure performs thorough due diligence that considers the companies’ stakeholder reputations.



## GOLD

ASIA’S BEST SUSTAINABILITY REPORT  
CEO LETTER CATEGORY

## SILVER

ASIA’S BEST SUSTAINABILITY REPORT  
PRIVATE COMPANY CATEGORY

ASIA’S BEST INTEGRATED REPORT  
VALUE CREATION CATEGORY

