



National Geothermal
Association of the Philippines

Co-hosted by



5th PHILIPPINE INTERNATIONAL GEOTHERMAL CONFERENCE

ROAD TO 5G

Gaining
Greener
Global
Geothermal
Generation

TECHNICAL PROGRAMME

The Fifth at Rockwell
Makati, Philippines

September 25 to 26, 2024



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DAY 1 SEPTEMBER 25, 2024 WEDNESDAY	
7:00 – 8:00	Registration
OPENING CEREMONIES	
8:00 - 8:05	Invocation
8:05 - 8:10	National Anthem
8:10 - 8:15	Safety briefing
8:15 – 8:25	Welcome Remarks and Introduction of First Keynote Speaker Jaime Jemuel C. Austria Jr. <i>NGAP President, 2024 - 2027</i>
8:25 - 8:45	Keynote Speech 1 H.E. Catherine McIntosh <i>Ambassador of New Zealand</i>
8:45 to 8:50	Introduction of Second Keynote Speaker Lea Carmelia Fernandez <i>NGAP Secretary, 2024 - 2027</i>
8:50 to 9:10	Keynote Speech 2 Asst. Sec. Mylene C. Capongcol <i>Department of Energy</i>
8:10 to 9:30	Photo break
Plenary Session 1: GEARING TOWARDS GROWTH: PUBLIC AND PRIVATE EFFORTS TO ENABLE GEOTHERMAL DEVELOPMENT <i>Moderator: Loraine Pastoriza-Primaleon, NGAP Trustee, 2024-2027</i>	
9:30 to 9:35	Introduction to the Session Nikki Manalastas <i>NGAP Trustee & 5th PIGC Convener</i>
9:35 to 9:50	Plenary-1A: Energy Development Corporation Jerome H. Cainglet <i>President and COO, Energy Development Corporation</i>
9:50 to 10:05	Plenary-1B: Philippine Geothermal Production Company Napoleon L. Saporsantos, Jr. <i>President, Philippine Geothermal Production Company</i>
10:05 to 10:20	Plenary-1C: Maibarara Geothermal, Inc. Maria Victoria M. Olivar <i>Asst. Vice-President, Maibarara Geothermal, Inc.</i>



10:20 to 10:35	Plenary-1D: AP Renewables at Aboitiz Power Corp. Jeffrey R. Estrella <i>President and COO, AP Renewables at Aboitiz Power Corp.</i>
10:35 to 10:50	Plenary-1E: Next Generation Technologies driving Geothermal Growth Benoit Deville <i>Director – Geothermal, SLB Tech Development</i>
10:50 to 11:30	Open Forum
11:30 to 12:30	LUNCH
Technical Session A: ENVIRONMENTAL, SOCIAL, AND GOVERNANCE	
12:30 to 12:45	Carbon Neutrality in Geothermal Energy: Establishing a Framework for High-Emission Industries Eylem Kaya, Dale Altar, and Sadiq Zarrouk <i>The University of Auckland</i>
12:45 to 1:00	Community-based Natural Resources Management in Mt. Makiling and Mt. Bulalo Joyce Marie M. Lopez¹, Victor E. Dugan¹, Nicasio M. Balahadia² <i>¹ Philippine Geothermal Production Company; ² UP Los Banos</i>
1:00 to 1:15	Assessing the Ripple Effects: The Impact of Climate-Related Reporting and Disclosure Developments on the Geothermal Energy Sector Benjamin Villacorte and Francis Dominic Callo <i>SyCip Gorres Velayo & Co.</i>
1:15 to 1:30	Q&A
Technical Session B: GEOHERMAL EXPLORATION AND 3D MODELLING ADVANCEMENTS	
1:35 to 1:50	Magneto-Telluric (MT) and Gravimetric Survey of Mt. Sibulan-Kapatagan Geothermal Power Project, Digos-Sta. Cruz Municipalities, Davao Del Sur Noel Lucas <i>B. Barcelona Geological Survey Services and Power South, Inc.</i>
1:50 to 2:05	Reservoir Insights from Borehole Images: Efficiency Improvements during the Wairakei-Tauhara Development Matthew Sophy and Angus Howden <i>Contact Energy</i>
2:05 to 2:20	3D Reconstruction of the Structural Setting of the Tiwi Geothermal Field, Albay, Philippines using Integrated Surface and Downhole Data Vincejet Ejera <i>Philippine Geothermal Production Company</i>
2:20 to 2:35	Q&A

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Technical Session C:	
DRILLING	
2:40 to 2:55	Drilling Performance Optimization Through Cycle Time Improvement Process Rufino Cotanda Jr. <i>Philippine Geothermal Production Company</i>
2:55 to 3:10	Introduction of Pin-to-Pin Abutment Connections (Cost Effective Solution for Geothermal Wells) Nobuhide Sato, Zaifullah <i>Metal One Corp.</i>
3:10 to 3:25	Advantages of Reverse Cementing and Operational Considerations for Geothermal Well Applications John Bowling, Daniel Bour <i>Blade Energy Partners</i>
3:25 to 3:40	Q&A
Technical Session D:	
WELL TESTING AND INTERVENTION	
3:45 to 4:00	Debut of BlueSpark Well Clearing in the Philippines : Application of BlueSpark Technology in Leyte Reinjection Well and Negros Production Well Demi Abaniel¹, Hubert Menard², Jason Fisher², Rochelle Longval², Ernest Victor Daquil¹, La Verne Abong², Kenneth Taboco¹, Daryl Gamez¹ <i>¹Energy Development Corporation; ²BlueSpark</i>
4:00 to 4:15	Coiled Tubing Rigless Intervention in Geothermal Output Enhancement Journey Nigel Yong¹, Neveshen Suresh¹, Jefferson Villacorte², Kelly Colina² <i>¹Schlumberger ²Energy Development Corporation</i>
4:15 to 4:30	Geothermal Multi-finger Caliper Casing Inspection: The Key Insights and Lessons Learned from More than 130 Wells Logged Since 2020 Reza Khastoo, Hanna De Jesus, Mark Caynila <i>Scientific Drilling International</i>
4:30 to 4:45	Better Asset Management: Casing Heatup Rates during Coil Tubing Airlift vs. Vertical Discharge, Tauhara Geothermal Field Production Wells Matthew Sophy and Angus Howden <i>Contact Energy</i>
4:45 to 5:00	Q&A

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DAY 2 | SEPTEMBER 26, 2024 | THURSDAY

Plenary Session 2:

**GEARING TOWARDS GROWTH:
PUBLIC AND PRIVATE EFFORTS TO ENABLE GEOTHERMAL DEVELOPMENT***Moderator: Erlindo C. Angcoy Jr., NGAP Trustee & 5th PIGC Program Manager*

8:00 to 8:05	Introduction to the Session Jonathan Caparas <i>NGAP Trustee, 2024-2027</i>
8:05 to 8:20	Plenary-2A: Updates on the Geothermal Derisking Roadmap of the Philippines Lemuel Alvarado Department of Energy
8:20 to 8:35	Plenary-2B: Empowering the Geothermal Community: Leveraging International Partnerships to Promote the Entire Geothermal Ecosystem Jericho Reyes <i>President, Geothermal Rising</i>
8:35 to 8:50	Plenary-2C: New Zealand Geothermal: Country Updates and New Zealand Geothermal Association's Role in Advancing National Priorities Kennie Tsui <i>Chief Executive, New Zealand Geothermal Association</i>
8:50 to 9:05	Open Forum
Technical Session E: RESOURCE MANAGEMENT	
9:10 to 9:25	Addressing the Risk of Field-wide Enthalpy Decline with Well Casing Design Optimization of an Infield Replacement Reinjection Well in Mt. Apo Geothermal Production Field Marvic B. Bustillo <i>Energy Development Corporation</i>
9:25 to 9:40	Estimating Pressure Drop in Two-Phase Geothermal Fluid Flow Patrick Robinson <i>MB Century</i>
9:40 to 9:55	Advancing Geothermal Well Descaling - Four Years Leap: Enhancing Geothermal Hot Well Descaling with Metal-to-Metal motor Technology Hans-Henk Wolters <i>Full Metal Power</i>
9:55 to 10:10	Q&A



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Technical Session F: MINERAL SCALING AND CORROSION	
10:15 to 10:30	<p>Subsurface Corrosion Mitigation Experience through Acid Fluid Neutralization in the Tiwi Geothermal Field, Albay, Philippines</p> <p style="text-align: center;">Jean Mary Libato-Avila and Arnel Mejorada <i>Philippine Geothermal Production Company</i></p>
10:30 to 10:45	<p>New Highly Thermally Stable Corrosion Inhibitor for Geothermal Applications</p> <p style="text-align: center;">Parravicini Davide <i>Italmatch Singapore Pte Ltd.</i></p>
10:45 to 11:00	<p>Expanded Geochemical Modeling Helped Improve Mineral Scaling Inhibition Strategy: A Geomizer™ 3.0 Case Study</p> <p style="text-align: center;">Fritz Earwin Monterozo <i>Nalco Water</i></p>
11:00 to 11:15	<p>Clearing Mineral Blockages in EDC Reinjection Wells Using Solenis Online Well Cleaning Method</p> <p style="text-align: center;">Lorenz Jay B. Villero <i>Energy Development Corporation</i></p>
11:15 to 11:30	<p>Comparative Study of Silica Inhibitor Versus pH Modification in the Geothermal System</p> <p>Arsyan Sasoni¹, Anggara Wibawa⁶, Logan Muller³, Nur Amin¹, Megan Low², Michael Bluemle⁴, Michael Todd⁴, Muhammad Thasril⁵, Muhammad Khamim⁵, Hanifah Azizah⁵, Efrata Meliala⁵</p> <p><i>¹PT. Solenis Technologies Indonesia, Indonesia; ²Solenis Singapore Pte Ltd, Singapore; ³Solenis New Zealand, Auckland, New Zealand; ⁴Solenis LLC, Wilmington, DE, USA; ⁵PT. Geo Dipa Energi, Indonesia; ⁶PT. Trisan Samoa Indonesia, Indonesia</i></p>
11:30 to 11:50	Q&A
11:50 to 12:30	LUNCH
POSTER SESSION	
12:30 to 1:30	<p>P1: Prediction of Geothermal Energy in Meeting Global Energy Demands by 2050</p> <p style="text-align: center;">Murat KARADAŞ, Selim TUNA, Alptuğ GÜR, Seymur GULİYEV <i>GMK Enerji</i></p>
	<p>P2: Towards a New Standard in Formation Evaluation for Geothermal: Delineating Homogeneity and Flow Capacity across a Sub-horizontal Well with Nuclear Magnetic Resonance Combined with Azimuthal Sonic and Density Log</p> <p style="text-align: center;">Chiara Cavalleri and Erik Wielemaker <i>Schlumberger</i></p>

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12:30 to 1:30	<p>P3: The Geology and Geochemistry of the Mt. Sibulan-Kapatagan Geothermal Power Project (MSKGP), Digos and Sta. Cruz, Davao del Sur, Philippines</p> <p style="text-align: center;">Dr. Bernardo Barcelona <i>B. Barcelona Geological Survey Services and Power South, Inc</i></p>
	<p>P4: Prospecting Potential Geothermal Resources Through Mapping of Surface hydrothermal Alteration Minerals and Geological Structures in the Songwe Region, SW Tanzania</p> <p style="text-align: center;">Edward James Maarifa</p>
	<p>P5: Characterizing the Fractures and Stresses for High-Temperature Geothermal projects with Advanced Through-the-Bit-Logging Tool Measurements</p> <p style="text-align: center;">Chiara Cavalleri <i>Schlumberger</i></p>
	<p>P6: Inconsistent Quality of Cement Presents Challenges to Geothermal Operations</p> <p style="text-align: center;">Ramil Bunac <i>Philippine Geothermal Production Company</i></p>
	<p>P7: Reverse-Circulation Cementing and Foamed Latex Cement Enable Drilling in Lost-Circulation Zones</p> <p style="text-align: center;">Rafael Hernandez and Hao Nguyen <i>Halliburton</i></p>
	<p>P8: Advanced Geothermal Monitoring: Integrating Real-Time Sensing and Profiling Technologies</p> <p style="text-align: center;">Bettinelli P., Le Calvez J., Takashi M., Jansen K., Dodds A., Kelly M. and Gulati V.A. <i>Schlumberger</i></p>
	<p>P9: Learnings from 50 Chemical Well Cleaning and Stimulations Across various Well Types, Formations and Countries</p> <p style="text-align: center;">Dr. Logan Muller <i>Solenis</i></p>
	<p>P10: Best Practices and Innovations Implemented in the Botong-Rangas Simultaneous Wells Discharge Test</p> <p style="text-align: center;">Kevin Dario, Harold Doma <i>Energy Development Corporation</i></p>
	<p>P11: Drone-based Thermal Mapping for EDC steamline</p> <p style="text-align: center;">Rodolf Karlmark M Malaluan <i>Energy Development Corporation</i></p>
	<p>P12: Innovations in Well Testing Solutions for Geothermal Wells</p> <p style="text-align: center;">Pramod Kumar, Vikram Aditya Gulati <i>Schlumberger</i></p>
<p>P13: Development of a Novel HT Calcite Scale Inhibitor for Geothermal Applications</p> <p style="text-align: center;">Parravicini Davide <i>Italmatch Singapore Pte Ltd</i></p>	



12:30 to 1:30	(cont. of Poster Session)	P14: Management of Scale Deposition in Geothermal Wells through Silica Inhibition with Polycarboxylic Acid Copolymer Desiree Lim ¹ , David Penaloza ¹ , Henry Siy ¹ , Loida Rodriguez ¹ , Erlindo Angcoy Jr. ² , Anna Cristeta Panopio ² , Edgar Amatong ² <i>¹Chemrez; ²Energy Development Corporation</i>
		P15: Geothermal Power Plant Confidence Level System Darwin Tenorio <i>AP Renewables Inc.</i>
		P16: Specially Developed Program on Performance and Process Management in Geothermal Power Plants: Thermosoft Murat KARADAŞ, Selim TUNA, Alptuğ GÜR , Seymur GULİYEV <i>GMK Enerji</i>
Technical Session G: WELL UTILIZATION AND OPTIMIZATION		
1:35 to 1:50		Navigating Geothermal Challenges: A Decision Framework for Successful Well and Reservoir Interventions Kennard Maturgo , John Gilliland, Martin Pujol, Neale Young, Nadia Domanski <i>JRG Energy Consultants Ltd.</i>
1:50 to 2:05		Unlocking the Potential of Unwanted Wells with High Level of Non-Condensable Gases via a Novel Heat Exchange-Driven Separation Process Marlito Langga ¹ , Brian Higgins ² , Alvaro Amaya ² <i>¹Energy Development Corporation; ²GreenFire Energy, Inc.</i>
2:05 to 2:20		Optimization of Liquid Loading Mitigation in Geothermal Wells Using Nitrogen Lifting Techniques Edwin Lawrence ¹ , Sarjono Tasi Antoneus ¹ , Anthony Menzies ² <i>¹Schlumberger; ²Philippine Geothermal Production Company</i>
2:20 to 2:35		Q&A
Technical Session H: NEW POWER GENERATION AND GEOTHERMAL TECHNOLOGIES		
2:40 to 2:55		Maximising Use of the Geothermal Heat Resource: New Zealand Directions for Geothermal Innovation Reeves, R.R. , Carey, B., Chambefort, I. <i>GNS Science</i>
2:55 to 3:10		Advancing Geothermal Exploration and Sustainability with Reda Thermal Electrical Submersible Pump (ESP) Lai Ann Cheang <i>Schlumberger</i>
3:10 to 3:25		Experimental Characterization of Multi-Phase Flow in Geothermal Settings Adolph Bravo, Jr. <i>Háskóli Íslands</i>
3:25 to 3:35		Q&A

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Technical Session I: GEOTHERMAL POWER STATION IMPROVEMENT SYSTEMS	
3:40 to 3:55	Commissioning the 28 MW Bacman Binary Power Plant, Sorsogon, Philippines Michelle Bibon and Blessie Vergara <i>Energy Development Corporation</i>
3:55 to 4:10	De-risking Geothermal Investment using Standardized, Modular, Flexible ORC Power Plants Dhwanil Shah <i>Orcan Energy</i>
4:10 to 4:25	Quantifying Local Weather Effects on Power Plant Performance and Improvement Initiatives Russel Alamer and Jorem Villareal <i>AP Renewables Inc.</i>
4:25 to 4:40	Q&A
CLOSING CEREMONIES	
4:40 to 4:50	Closing Remarks Arnel V. Mejorada NGAP Vice-President, 2024 - 2027
4:50 to 5:05	Preparations for GAM
5:05 to 5:45	General Assembly Meeting of NGAP Atty. Fernando Peñarroyo / Jaime Jemuel C. Austria Jr.
6:00 onwards	SOCIALS

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