VISION DEVELOPMENT OPERATIONS

IGC 2018

PROGRAM

www.igc.is

ICELAND GEOTHERMAL CONFERENCE

Reykjavik · Harpa · 24–27 April, 2018

Iceland Geothermal Cluster Initiative

Event Management

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#IGC2018

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IGC2018 APP

All updated information about the conference in your smart phone.

Wifi in Harpa: igc2018

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Index

ICELAND GEOTHERMAL CONFERENCE
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Iceland Geothermal Cluster Initiative

Reykjavik · Harpa · 24–27 April, 2018

Address by the Conference Committee

Dear colleagues – Welcome to the fourth Iceland Geothermal Conference 2018

The aim of the Iceland Geothermal Conference (IGC) has been to raise awareness of geothermal energy as one of the main renewable energy solutions. More importantly, it aims to serve as a platform upon which world leaders and professionals can come together and address the urgent, business-related topics. Despite the vast opportunities for geothermal to contribute towards energy transformation and to aid the international community in reaching climate change commitments, sector growth has been slow. The overall theme of the IGC is to share effective methods and to examine the best practices currently employed in geothermal projects, informing stakeholders on methods to make the most out of a geothermal project, and to explore ways in which the value of a project can be increased.

Today, the IGC conference is an internationally recognized event that brings together industry leaders and policy makers. The quality of the conference and the experience of a visit to Iceland is carefully planned and monitored by the IGC committee. Lectures, exhibitions, field trips, and other recreational activities which are tailored to the themes of the conference, are part of what is on offer at IGC. Few places in the world can provide access to six geothermal power plants with different installation and turbine setups, the geothermal fields, exciting new technology development, showcase various direct utilization options, and also exhibit the interaction between geothermal and other industries such as fuel cell technologies.

The IGC 2018 topics cover the essence of the geothermal value chain

VISION
A non-technical overview of how stakeholders and policy makers can pave the way for geothermal development. This theme is aimed at those who are participants at the top-level of decision and policy making processes, both in the public and private sector.

DEVELOPMENT
A comprehensive overview of effective solutions for project developers. During the development phase, there are multiple challenges to address. This theme explores solutions to these challenges and focuses on financing and business strategies for geothermal projects. A strong focus is put on project updates from all over the world.

OPERATIONS
A business oriented overview of how plant owners, investors, developers, and financiers can plan and maintain long-term profitability and sustainability. This theme explores real business cases related to geothermal projects. Operators will share their knowledge and experience, from which other conference guests can gain valuable insight.

We sincerely hope you will learn from this event, develop new ideas, build new valuable relationships, strengthen existing ones and last but not least contribute to the development of the geothermal for the future.

Welcome to Iceland - the home of geothermal!

The Conference Committee of IGC 2018

Páll Erland, conference chair
Harpa Pétursdóttir
Friðrik Ómarsson
Fjalar Sigurðsson,
Ásdís Gíslason
Vilhjálmur Skúlason
Sunna Björg Reynisdóttir
Vilhjálmur Guðmundsson
Carine Chatenay
Auður Nanna Baldvinsdóttir
Bergur Sigfusson

Conference Management

Viðar Helgason, Managing Director
Jón Sigurður Pétursson, Editor

Breaking the Barriers

VISION – DEVELOPMENT – OPERATIONS

The 4th Iceland Geothermal Conference will be hosted in Iceland in April 2018. The conference offers an in-depth discussion of the barriers that hinder development of the geothermal sector and how to overcome them. It also focuses on the business environment through three separate themes: vision, development, and operations.

IGC 2018 offers field trips to nearby geothermal areas and easy access to Icelandic geothermal experts. IGC is known to offer quality lectures delivered by carefully selected speakers from around the world. As before, a networking event will be hosted where buyers and sellers get the opportunity to establish new relationships that could lead to new business opportunities.

The founders of Iceland Geothermal Conference (IGC) recognize that networking is an integral part of any good conference. Therefore, we offer attendees the option to use an interactive app to become more visible at the conference. This conference provides you with a great opportunity to learn and to network within the geothermal community.

IGC is a nonprofit event sponsored by the Iceland Geothermal Cluster Initiative. The conference was setup as an international platform for the geothermal industry and project developers, to gather and share views on how to improve the business environment for geothermal projects.

Reaching Full Potential

In 2014, direct use of geothermal energy around the world was estimated at 70.3 GWth (gigawatts thermal), growing at an annual pace of 7.7 percent. Based on available resources, geothermal energy could grow up to 210 GW (gigawatts), though this figure could be multiplied by 5 or even 10 considering the potential of hidden resources.

Worldwide, geothermal energy has a much larger potential than it currently is showing, at 13.4 GW, it amounts to only 0.56 percent of the total power generated by renewable energy sources.

As the utilization of renewable energy is increasing around the world, geothermal resources have started to gain ground in the sector. A clean energy solution which has additional advantages for the environment, with its as-yet-untapped potential, presents multiple opportunities for individuals and businesses looking to venture into the geothermal industry, or just renewables in general.

Preface

In October 2009, steps were taken to establish a geothermal cluster in Iceland. The mapping of the cluster was supported by a diverse group of companies, overseen by Professor Michael Porter and his team at Harvard Business School, US, and coordinated by the consultancy company Gekon. Results of the mapping process lead to the recommendation for an optimal path to take, which would strengthen the infrastructure within the geothermal sector in Iceland by establishing a cluster initiative. One of the Iceland Geothermal Cluster Initiative's main roles is to promote Iceland "As the land of geothermal energy and geothermal utilization".

In the last few years, Iceland has been a leading force in the development of geothermal energy thanks to its location. Iceland has easy access to ground water and clean seawater, plus it sits on the boundary of two tectonic plates, all of which make the country rich with geothermal energy that can be utilized for electricity generation or direct use.

In Iceland, geothermal energy currently supplies roughly 70 percent of the country's primary energy use, with district heating being the main source of energy consumption. Geothermal energy generates around 30 percent of the country's 100 percent renewable electricity, proving that it is ideal for supplying baseload energy, improving energy security and boosting economic growth.

Energy Independence
By the mid-20th century, Iceland was one of the poorest countries in Europe. Without any resources of its own, it had no choice but to import fossil fuels for space heating. The future seemed gloomy for a nation with a sparse population living on an island totally dependent on fossil fuels.

It took decades, but eventually Iceland overcame this dependency, becoming a pioneer in the energy field by developing a self-supplying matrix of renewable resources. This was the result of a process of trial and error, during which the country learned how to take advantage of its geothermal resources. Over the years, Iceland expanded its scope to hydropower from glacial rivers.

Geothermal power's as-yet-untapped potential presents multiple opportunities for individuals and businesses.

Now, the discussion is centred on whether Iceland can take the next step and become an exporter of renewable energies. This is especially important today, when the world is seeking solutions to curb pollution and climate change.

An example of the cooperation needed to make further progress in this field comes from China, where, working together with Iceland, cities were able to reduce their carbon footprint and clean the ambient air while also implementing district heating networks.

Despite its proven advantages, geothermal power generation is still under-exploited. Although it has in the last few years gotten increased attention, the industry needs to develop a better understanding of its own possibilities so it can make full use of the available benefits.

IGC 2018 focuses on the international aspects of the geothermal industry. This global perspective that the conference provides, confirms that Iceland has become one of the most important platforms for bringing people together and hosting important dialogues on geothermal-related issues. Climate change threatens our way of life and nations worldwide are striving to increase the share of renewables in their energy mix, to meet their current and future energy demands. This conference will highlight the urgent need for an increased understanding of the nature of geothermal resources.

The Iceland Geothermal Conference 2018 is a venue for friendship, instructive transfer & sharing of knowledge, and for initiating fruitful cooperation between participants and participating companies.

Address

by the President of Iceland Guðni Th. Jóhannesson

Our future on this earth depends on the sustainable use of its resources. At the same time, it is our common task to alleviate hunger and poverty. And this requires energy. We need energy to heat or cool our homes. We also need it to move from one place to another, either literally or in cyberspace. In short, in our daily lives we all need energy.

All over the world, governments, companies and individuals are becoming more aware of the benefits of geothermal power. Here in Iceland, we already have a tried and tested history of using geothermal resources for district heating, electricity production and other purposes.

At this conference, we should aim to exchange information and knowledge, ideas and experiences, whether positive success stories or pitfalls to avoid. Significantly, the environmental impact of drilling steam wells, building power plants and laying distribution networks for the electrical power and hot water produced must not be overlooked. Still, encouraged by our geothermal riches and our experience in harnessing this sustainable resource, we Icelanders want to contribute to the world-wide energy transformation that we all must strive for, a transformation that entails an ever greater reliance on clean and green resources.

In his opening address at the Iceland Geothermal Conference in 2016, my predecessor, Ólafur Ragnar Grímsson, a long-time champion of geothermal energy, mentioned that the IGC had already become "an important international forum, highlighting the global advance in geothermal utilization and how Iceland demonstrates the multi-dimensional benefits from clean energy transformation."

Today, Grímsson's words resonate with even more strength as the negative aspects of some other widely-used energy sources are becoming increasingly evident. We have an interesting conference ahead. Furthermore, in 2020 Iceland, will proudly host the World Geothermal Congress. I wish you all a fruitful time here in Reykjavík, the capital of geothermal energy.

Guðni Th. Jóhannesson, President of Iceland

Address – Ministry of Industries and Innovation

Event Partner

On behalf of the Government of Iceland it gives me great pleasure to welcome you to the 4th Iceland Geothermal Conference in Reykjavík.

Increasing the share of renewable energy in global energy consumption is a key issue in climate change mitigation. We are entering into a new era in the field of energy, which is based on renewables, new technologies and decarbonization.

Sustainable utilization of geothermal energy has for decades been one of the cornerstones of Icelandic energy policy. We are fortunate to live in a country where today we can heat 90% of our houses with geothermal energy and produce 25% of our electricity from this reasource, along with various other usage such as outdoor swimming pools and greenhouses.

The social, economical and environmental benefits of a sustainable geothermal utilisation are substantial. An example of this is the fact that the macro economical benefits of the geothermal district heating system in Iceland annually amounts to around 7% of our GDP. Since 1970 the share of fossil fuel in house heating in Iceland has decreased from 50% down to 1% and in the same period CO2 emissions in Reykjavík, due to space heating, have gone from 250.000 tonnes per year down to zero.

The Icelandic Geothermal Conference is a venue to share experiences and promote the multi-dimensional benefits from geothermal utilisation. The Conference has gained a status as a key international forum were experts meet to discuss the challenges and future in geothermal utilisation and clean energy transformation. Geothermal energy is to a large extent a resource which is yet to be realized in various parts of the world and this provides both great possibilities and challenges.

It is my sincere hope that your participation in the IGC 2018 will give you an insight into our own geothermal world and, thereby, inspire others to join our efforts.

Thórdís Kolbrún R. Gylfadóttir,
Minister of Tourism, Industry and Innovation

Address – Ministry of Foreign Affairs Iceland

Event Partner

The world is at a crossroads, faced with challenges and in some cases threats that can only be addressed effectively if we work together, organized and determined to reach our common goals. These goals were agreed upon when world leaders adopted the 2030 Agenda for Sustainable Development and the Paris Agreement.

We are faced with the reality that we need faster progress and stronger impact in all areas of sustainable energy, including access to energy, renewable energy development and energy efficiency. To achieve this, we need higher level of financing, stronger policy commitments and active involvement of the private sector.

Worldwide, geothermal resources hold much more potential than is currently utilized. For geothermal energy to remain a feasible option the industry must remain vigilant and find cost effective solutions and innovations.

An important factor contributing to the feasibility of geothermal development are the direct use opportunities. They have less technical barriers, offer cascading uses of the resources and result in fast and tangible social and economic benefits.

The nexus between food and geothermal energy is a very relevant subject in Iceland, having used geothermal energy in the agricultural and fisheries sector for very long time. However, around the world this is far from being fully developed in food systems, especially using geothermal as an energy source instead of fossil fuel.

We know that opportunities for electricity production and direct use in countries which are endowed with viable geothermal resources can make a significant difference for economic and social development as well as mitigating climate change. We have a great opportunity here at the IGC during the next two days to share knowledge and discuss how we can "break the barriers" and make that happen.

With this conference you have once again demonstrated how important it is to have one common platform to promote the geothermal sector in Iceland and assist Icelandic companies to engage even further in international collaboration.

Thank you, and I wish you a fruitful conference.

Guðlaugur Þór Þórðarson, Foreign Minister of Iceland

Keynote Speakers

Adnan Z. Amin

Director-General of IRENA

Adnan Z. Amin is the Director-General of the International Renewable Energy Agency (IRENA), currently serving his second term. He has over twenty five years of experience and recognized accomplishments in the international arena, primarily in the fields of sustainable development, international energy and en-vironment policy, as well as a solid track record in institutional and organisational development and management of international organisations. Mr. Amin joined IRENA in 2010 as the Interim Director-General of the Preparatory Commission for IRENA. In April 2011, he was elected as the agency's first Director-General. During his tenure, IRENA has become the global authority on renewable energy and a vibrant international organisation.

Christiana Figueres

Former Executive Secretary UNFCCC and Convenor, Mission2020

Christiana Figueres is a world authority on global climate change and was the Executive Secretary of the UNFCCC from 2010-2016. Ms. Figueres is currently Vice-Chair of the Global Covenant of Mayors for Climate and Energy, ClimateWorks Board Member, World Bank Climate Leader, Senior Fellow for Conversation International and Mission2020 Convenor. During her tenure at the UNFCCC Ms. Figueres brought together national and sub-national governments, corporations and activists, financial institutions and communities of faith, think tanks and technology providers, NGOs and parliamentarians, to jointly deliver the historic Paris Agreement on climate change, in which 195 sovereign nations agreed on a collaborative path forward to limit future global warming to below 2C. The agreement entered into force in less than a year, breaking the record of the UN. For this achievement Ms. Figueres has been credited with forging a new brand of collaborative diplomacy.

Rohit Khanna

Programme Manager, Energy Sector Management Assistance Program (ESMAP), World Bank Group

Rohit oversees a portfolio of analytical and advisory activities to inform the energy sector policy dialogue. Under his direction, ESMAP has grown exponentially to support over 250 activities in more than 130 countries; influence World Bank, IDA, and IBRD financing; and leverage billions from global partners to support the growth of and strengthen the design and implementation of investment projects in the sector. Rohit joined The World Bank in 2000, and prior to assuming his current position at ESMAP, he worked on the Global Environment Facility (GEF) and Clean Technology Fund (CTF) at the World Bank. Before joining the World Bank, he was a Program Officer in the UN Environment Program, and worked for the Save the Children Fund in its Bhutan Field Office.

Alexander Richter

President of the International Geothermal Association (IGA)

Alexander Richter is Founder and Principal of ThinkGeoEnergy.com, the leading online news platform for the global geothermal energy industry. He also works as a consultant on strategic, marketing and corporate finance related activities. He also acts as Marketing & Communications Director for UK-based Green Energy Geothermal (GEG) that provides turn-key modular geothermal wellhead power plants. Alexander is the President of the International Geothermal Association (IGA) for the term of 2016-2019, and has been a member of the board since 2013. He is also Director-at-Large on the Board of the Canadian Geothermal Energy Association (CanGEA). He has been a spokesperson for geothermal energy at many of the major geo-thermal and renewable energy events internationally.

Dr. Marit Brommer

Executive Director, International Geothermal Association (IGA)

Dr. Marit Brommer is the Executive Director of the International Geothermal Association (IGA). She oversees the daily operation and is responsible for executing the strategic initiatives. Marit is trained as a Geologist and has a PhD in Geophysics. She build her career in the Oil and Gas Industry prior to joining the Geothermal Community in 2017. Marit is keen to grow the IGA, to collaborate with partners, and to push Geothermal Energy forward as a key enabling renewable technology of the energy transition.

Cecilia Edling

Founder of heatpower.com

Cecilia is the founder of heatpower.com. She is a knowledgeable and passionate speaker within sustainability, Sustainable Development Goal No 7 in particular, to ensure access to affordable, reliable, sustainable and modern energy for all. Cecilia's ambitions and beliefs are, to make Heat power the number one renewable energy source for the future, the sustainable baseload, and through that- reverse climate change and make the world an even better place to call home.

Shinichi Kitaoka

President of JICA

Mr. Shinichi Kitaoka is President of the Japan International Cooperation Agency. Before assuming the present post, he was President of the International University of Japan.Mr. Kitaoka's career includes Professor of National Graduate Institute for Policy Studies (GRIPS) (2012-), Professor of Graduate Schools for Law and Politics, the University of Tokyo (1997-2004, 2006-2012), Ambassador Extraordinary and Plenipotentiary, Deputy Permanent Representative of Japan to the United Nations (2004-2006), Professor of College of Law and Politics, Rikkyo University (1985-1997) Mr. Kitaoka's specialty is modern Japanese politics and diplomacy. He obtained his B.A. (1971) and his Ph.D. (1976) both from the University of Tokyo. He is Emeritus Professor of the University of Tokyo. He has numerous books and articles in Japanese and English. He received many honors and awards including the Medal with Purple Ribbon for his academic achievements in 2011.

Ragna Árnadóttir

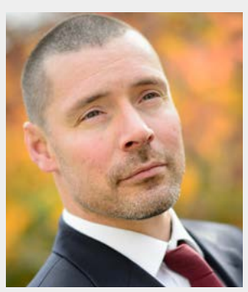
Deputy CEO at Landsvirkjun

Ragna joined Landsvirkjun, the National Power Company of Iceland, in 2010. And has been deputy CEO of the company since 2012. She was Minister of Justice and Ecclesiastical Affairs and Minister of Justice and Human Rights for the Republic of Iceland from February 2009 to September 2010. She was the Director of Legal Affairs in the Ministry of Justice and Ecclesiastical Affair (2002-2008) and Head of Division in the Legal Office in the Ministry of Health and Social Security (2001-2002). Ragna held the position Senior Adviser for the Nordic Council's Secretariat in Stockholm and later Copenhagen (1995 – 1999) and worked as a legal expert for the Parliament of Iceland (1991-1995). Ragna is currently the chairman of the Icelandic Growth Forum as well as a board member of Saga Film ehf. and vice-chairman of the Icelandic Red Cross.She holds a Master of European Affairs LL.M from the University of Lund in Sweden (2002) and completed her Cand. Jur law degree from the University of Iceland (1991).

Paul Voss

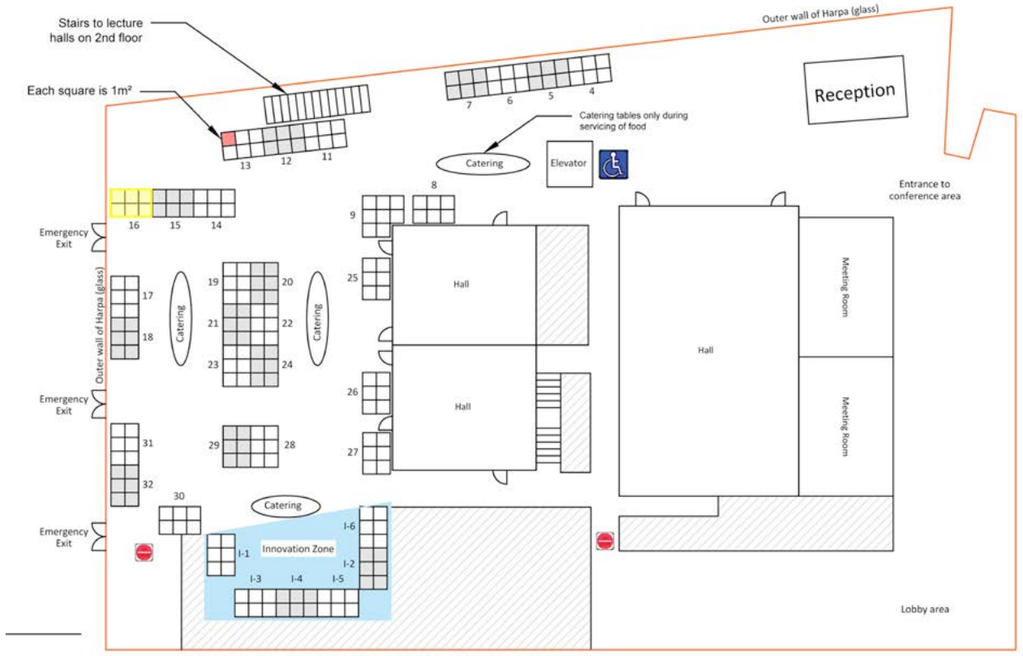
Euroheat and Power

Paul Voss joined Euroheat & Power as Managing Director in late 2013 from Danfoss District Energy, a global leader in District Heating and Cooling (DHC) technology. As Head of Public and Industrial Affairs, he led the company's efforts to engage with policy-makers at global, EU, national and local level. Prior to that, he was responsible for relations with EU institutions in the fields of energy and environment policy at the European LPG Association. He has also worked for CLAN Public Affairs as a public policy analyst. Paul has an in-depth understanding of EU policy and first-hand experience in managing cooperation between the private and public sectors in pursuit of shared goals, and has played a leading role in establishing the heating sector in general and district energy in particular as priority fields in EU energy policy. He has studied in Canada, France and Belgium and holds a Masters degree in European Public Policy.



Brand Awareness Exhibition

Wednesday and Thursday
Conference Centre



Geothermal Brokerage Event

In cooperation with Enterprise Europe Network, the Iceland Geothermal Initiative is organizing an International matchmaking event in Geo-thermal. This event will be running parallel to the conference IGC2018 and will give participants opportunities to meet and exchange information between possible technological/ business partners.

Brokerage Event: April 25-26, 2018

Registration at front desk
Email: Kjartan@nmi.is

PLATINUM SPONSORS

Landsvirkjun

Landsvirkjun, The National Power Company of Iceland

Landsvirkjun is Iceland's largest power producer. Our role is to consistently endeavour to maximise the yield and value of the natural resources we have been entrusted with, in a sustainable, responsible and efficient manner. Landsvirkjun's future vision is to be a progressive, international energy company in the field of renewable energy. We want to be amongst the best in the generation and sale of power.

We operate 14 hydropower stations, three geothermal power stations and two wind turbines in five areas of operation, all over Iceland. We believe in an integrated approach guided by prudence, reliability and the harmony of operations with both environment and society.

OR Reykjavik Energy

Orkuveita Reykjavíkur – Reykjavík Energy

Orkuveita Reykjavíkur, also known as Reykjavík Energy, is Iceland's largest producer of geothermal energy. The subsidiary ON Power generates electricity and hot water in two geothermal power plants, at Nesjavellir and Hellisheiði. The current combined power of the plants is 423 MW electricity and 533 MW thermal.

Furthermore, OR's subsidiary Veitur Utilities is responsible for providing about 70% of Icelanders with geothermal heating. Veitur receive hot water from ON Power's geothermal power plants. Additionally, Veitur's own direct use of geothermal resources provides up to 500 MW of thermal power.

All companies emphasize environmental, social and fiscal sustainability in all their operations. Special attention is given to gender equality and the companies have committed to developing methods that allow for zero-emission utilization of the geothermal resource.

GOLD SPONSORS

Ísor – Iceland GeoSurvey

Iceland GeoSurvey, ÍSOR, is a consulting and research institute providing specialist services to the power industry, particular in the field of geothermal sciences and utilisation. ÍSOR was originally founded in 1945 as a part of the State Electrical Authority, later the National Energy Authority. ÍSOR became an independent governmental institute in July 2003.

ÍSOR and its predecessors have played a vital role in the provision of geothermal energy in Iceland, with the result that over 65% of primary energy use and 90% of all domestic heating is currently sourced from geothermal.

ÍSOR is able to offer full consultation and services in the following disciplines:

- Geothermal Exploration
- Drilling Consultancy
- Well Logging and Mud Logging
- Well Testing and Evaluation
- Resource Assessment
- Reservoir Management
- Geothermal Training
- Environmental Studies
- Groundwater Studies
- Engineering Geology
- Offshore Exploration

Mannvit

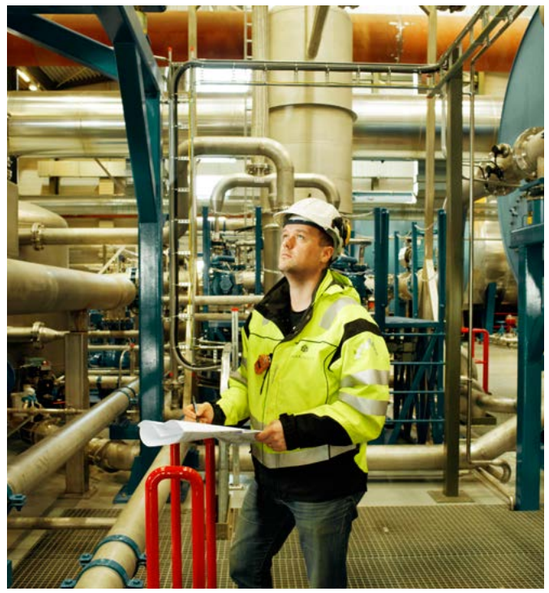
Mannvit offers engineering and geoscientific consulting that can take a project from start to finish to developers, plant operators, investors, and financial organizations.

This means that Mannvit provides consulting for initial concept studies, feasibility studies and technical due diligence of existing projects.

We offer geothermal exploration, evaluation of geothermal fields and world leading reservoir modeling consulting, drilling consulting, tendering of drilling services and Company Man during drilling.

When it comes to project development consulting, Mannvit's experience in engineering and know-how in steam-field and power plant design is second to none.

We also provide Project Management, operational and refurbishment consulting.



GOLD SPONSORS

Arion Bank

Arion Bank is a strongly capitalized bank which provides universal banking services to corporations and individuals.

- Prime emphasis on corporations and individuals seeking a variety of financial solutions.
- Focus on building and strengthening long-term customer relationships by delivering excellent service and tailored solutions.
- Operations in the Greater Reykjavík area as well as the largest urban areas around the country.
- Contributes to a positive development of the economy and society.
- A leading position within the domestic financial market in regards to return on equity, operational efficiency and service offerings.
- Arion Bank provides financial services outside of Ice land, mainly to companies related to the seafood industry in Europe and North America.

HS Orka

HS Orka is the third largest power company in Iceland and the only one privately owned with over forty years of successful operation in the arena of renewable energy. HS Orka owns and operates two state of the art CHP geothermal power plants at Svartsengi and in Reykjanes in South West Iceland. Their core operations have been in the production of electricity and hot water. The mission of HS Orka is to serve homes and industries through multiple, sustainable utilization of resources for the harnessing and sale of eco-friendly energy and other products for the benefit of customers, society and the company.

As an entrepreneurial company HS Orka relentlessly seeks new ways to market its diverse products and the Resource Park is a good example of that. The Resource Park which has been developed in the neighborhood of HS Orka's geothermal plants is unique; it heralds the future, new ways of thinking and encourages even further development of increased and more efficient utilization of what the geothermal plants produce. The object of the Resource Park is to foster a "society without waste" and to ensure that all resource streams that flow to and from the companies in the Resource Park are utilized to the fullest extent possible, in as responsible manner as possible, for the benefit and further progress of the community. Several companies are located in the Resource Park and today more than 1.100 jobs can be directly attributed to it, in addition to other derived jobs. The employees at HS Orka are 60. Each of the companies at the Resource Park directly utilizes two or more resource streams from the geothermal plants of HS Orka. The range of business varies, such as the Blue Lagoon, cosmetics manufacturers, biotechnology companies, fish drying facilities and aquaculture.

GOLD SPONSORS

Verkís

As one of the foremost consulting engineering companies in the field of geothermal utilization, Verkís offers world-class expertise to project developers, energy producers, financial institutions and investors. Verkís has a long and solid record of successful project planning for geothermal power plants and district heating from the early stage of project development. Our strength lies in thorough and all-encompassing understanding of the science and technology involved in geothermal projects, having for decades provided consulting services to various stakeholders in the field of geothermal utilization.

Verkís geothermal power portfolio encompasses projects from high temperature fields with direct steam plants, to low temperature fields utilizing binary cycles or Organic Rankine Cycles, together with combined heat and power projects. We have participated in all geothermal power projects in Iceland since the onset of modern day geothermal utilization and have more recently been able to transfer our knowledge and know-how to other parts of the world such as Asia, Europe, Africa and the Americas.

Iceland Drilling

Iceland Drilling Company Ltd (IDC) is a leading high technical company in the field of high temperature deep geothermal drilling and has many decades of experience in both high and low temperature drilling. The company operates internationally, and possesses a fleet of new hydraulic rigs and modern drilling equipment that can be transferred swiftly from one part of the world to another.

The company has well-grounded expertise in international deep drilling projects, with a record of several hundred high temperature geothermal wells.

The company's operations have been in the Azores (Portugal), UK, Denmark, Ireland, Hungary, Germany, Nicaragua, Caribbean, (Dominica and Montserrat) Switzerland and in New Zealand. Currently the company is working in Iceland, Caribbean, New Zealand and Nicaragua.

Iceland Drilling Ltd provides Integrated Drilling Services for all onshore drilling projects. The company operates according to HSE (Health Safety and Environment) systems and is already certified according to ISO-9001, ISO 14001 and OHSAS 18001.

GOLD SPONSORS

Ormat

With over five decades of experience, Ormat Technologies, Inc. is a leading geothermal company and the only vertically integrated company engaged in geothermal and recovered energy generation (REG), with the objective of becoming a leading global provider of renewable energy.

The company owns, operates, designs, manufactures and sells geothermal and REG power plants primarily based on the Ormat Energy Converter – a power generation unit that converts low-, medium- and high-temperature heat into electricity. With 73 U.S. patents, Ormat's power solutions have been refined and perfected under the most grueling environmental conditions. Ormat has 530 employees in the United States and 770 overseas. Ormat's flexible, modular solutions for geothermal power and REG are ideal for the vast range of resource characteristics. The company has engineered, manufactured and constructed power plants, which it currently owns or has installed to utilities and developers worldwide, totaling over 2,500 MW of gross capacity. Ormat is the largest US-based geothermal operator with its current 800 MW generating portfolio spread globally in the U.S., Guatemala, Guadeloupe, Honduras, Indonesia and Kenya. Ormat also intends to expand its operations and provide energy management and energy storage solutions, by leveraging its core capabilities and global presence.

The Ministry for Foreign Affairs

Addressing the complex challenges of climate change is an important pillar of Iceland's foreign policy. A key solution to the climate agenda is to seek a true global energy transformation based on the utilization of renewable energy. An integral part of the Foreign Ministry's efforts is therefore to build international awareness about the potential of geothermal as a viable base-load energy source, as well as pursuing concrete geothermal projects through Iceland´s international cooperation.

The Government of Iceland supports enthusiastically the establishment of the Icelandic Geothermal Cluster. The creation of the Cluster represents a fundamental change to the partnership between the private sector, institutions, government agencies and the ministries. The Icelandic Geothermal Conference is a testament to this new and fresh approach.

By inviting international stakeholders to Reykjavik to exhibit and discuss Iceland´s successes and challenges on the road towards a non-fossil fuel based economy, Iceland´s partners will hopefully be motivated to reinforce efforts to fulfill the potential of geothermal utilization.

The Ministry for Foreign Affairs is proud to be among the main sponsors of the Icelandic Geothermal Conference. Through the commendable efforts of the Icelandic Geothermal Cluster, the conference is set to make Reykjavik a center of excellence in the harnessing of this fascinating energy source.

MINISTRY FOR FOREIGN AFFAIRS

ICELAND GEOTHERMAL CONFERENCE

PROGRAM

Reykjavik · Harpa · 24–27 April, 2018

DAY 1 TUESDAY, APRIL 24

08:00-17:00 **Exhibition Area**
17:00-18:00 **Break**
18:00-19:30 **WELCOME RECEPTION** at the Exhibition Area at Harpa.

All detailed information about IGC 2018 and the program: www.igc.is

Q&A = Questions & Answers
P = Panel Discussion at the end of Session

DAY 2 WEDNESDAY, APRIL 25

07:30-08:15 The House Opens – Coffee will be served.
08:15-10:00 OPENING PLENARY Silfurberg A + B Hall
Moderator: Juliet Ann Newson, Director, Iceland School of Energy
Opening Speech: Mr. Gudni Th. Johannesson, President of Iceland
Welcome Address: Gudlaugur Thor Thordarson, Minister for Foreign Affairs
Keynote: Adnan Z. Amin, Director General of IRENA
Keynote: Rohit Khanna, Programme Manager, Energy Sector Management Assistance Program (ESMAP), World Bank Group
Keynote: Cecilia Edling Östman, Founder Heatpower
Keynote: Dr. Marit Brommer, Executive Director of the International Geothermal Association (IGA)
10:00-10:30 Coffee / Tea Networking Break

Phase A VISION

DAY 2 WEDNESDAY, APRIL 25 (P)

Session A1 – Silfurberg A Hall

Timeslot from: 10:30-12:30

Winning Public Acceptance

Session Chair
Gurbuz Gonul, IRENA

Julia Nesheiwat 10:35
U.S. Department of State
Energy Security

Françoise Bey 10:57
Strasbourg Eurométropole
Social Acceptability

Sigurður St. Arnalds 11:19
GSAP Team
Geothermal Sustainability Assessment Protocol

Íris Baldursdóttir 11:41
Landsnet
Grid Stability Offered by Geothermal

12:30-13:30 Lunch Break

DAY 3 THURSDAY, APRIL 26 (P)

Session A2 – Silfurberg A Hall

Timeslot from: Timeslot from: 08:30-10:30

Setting the Frame for Success

Session Chair
Ágústa Ýr Thorbergsdóttir, Navigo

Baldvin Björn Haraldsson 08:35
BBA Legal
Industry Leadership in Setting Best Practice

Dr. Edda Sif Pind Aradóttir 08:54
Reykjavik Energy
Reaching Zero Emissions with Added Environmental, Social and Fiscal Value

Efrain Villanueva Arcos 09:13
SENER
Geothermal Legislation

Phoebe Parson 09:32
University of Waikato
NZ Geothermal Legislation: the Resource Management Act

Phase B DEVELOPMENT

DAY 2 WEDNESDAY, APRIL 25 (P)

Session B1 – Silfurberg B Hall

Timeslot from: 10:30-12:30

Financing Market Growth

Session Chair
Rikardur Rikardsson, Landsvirkjun Power

Peter Johansen 10:35
World Bank Group
Introduction and Strategy

Huong Mai Nguyen 10:35
World Bank Group
Introduction and Strategy

Johannes Scholl 10:52
KFW Bankengruppe
Introduction and Strategy

Hiroto Kamiishi 11:09
Japan International Cooperation Agency
Introduction and Strategy

Mehmet Erdem Yasar 11:26
EBRD
European Bank for Reconstruction and Development (EBRD)

Christiaan Gischler 11:43
Inter-American Development Bank (IDB)
Introduction and Strategy

12:30-13:30 Lunch Break

DAY 3 THURSDAY, APRIL 26 (Q&A)

Session B2 – Silfurberg B Hall

Timeslot from: 08:30-10:30

Project Updates

Session Chair
Hildur Magnúsdóttir, Iceland Drilling

Kato Kabaka 08:35
Tanzania Geothermal Developm. Co. Ltd.
TGDC Power Plant Development

Dan Batscha 09:00
Ormat
Ngatamariki Case

Ural Halaçoğlu 09:25
Zorlu Energy Group
Turkish Geoth. Developm.- Zorlu Case Study

Dr. Kayad Moussa Ahmed 09:50
Djibouti Geothermal Development Office
Geothermal Strategy in Djibouti

Phase C OPERATIONS

DAY 2 WEDNESDAY, APRIL 25 (P)

Session C1 – Kaldalón Hall

Timeslot from: 10:30-12:30

Impacting Operating Costs and Revenues

Session Chair
Sunna Björg Reynisdóttir, Efla

Trent Philipp 10:35
Reykjavik Geothermal (RG)
Open-book Contracts for Geothermal

Eng. Johnson P. Ole Nchoe 10:57
Geothermal Development CompanyGDC)
Status of Geothermal Development in Menengai, Baringo-Silali Projects

Hezy Ram 11:19
Greenmax Capital Advisors
Ownership Structure and its Effects

J. Rúnar Magnússon 11:41
Efla
Where are all the Private Investors in the Geothermal Sector?

Tryggvi Þór Herbertsson 11:41
Taurus slf.
Where are all the Private Investors in the Geothermal Sector?

12:30-13:30 Lunch Break

DAY 3 THURSDAY, APRIL 26 (P)

Session C2 – Kaldalón Hall

Timeslot from: 08:30-10:30

Plant Technologies & Knowledge Transfer

Session Chair
Dr. Bergur Sigfússon, Reykjavik Energy

Dr. Jürgen Peterseim 08:35
Erk Eckrohrkessel GMBH
Lessons Learned from other Industries

Dr. Jasbir Gill 08:54
Nalco Water
Managing Silica Deposits in Geothermal

Joseph Bonafin 09:13
Turboden
Binary Power Plants for the High Enthalpy Well-head Generation

Davíð Ó. Benediktsson 09:32
Verkís
Optimization of Existing Systems

Phase A VISION

DAY 3 THURSDAY, APRIL 26 (P)

Session A3 – Silfurberg A Hall

Timeslot from: 11:00-12:30

Competitiveness & Innovation

Session Chair
Auður Nanna Baldvinsdóttir, Landsvirkjun

Christopher Engman 11:03
CRO/CMO Climeon
Why low temperature Heat power will be much larger than high temperature

Peter Harris 11:18
Green Energy Geothermal
Decreasing Equity Requirements

Sturla Sæther 11:35
Statoil
Economics of a GeoMagma Power Plant

Gad Shoshan 11:52
Ormat
Strategy for Fast Development

Dr. Gunnar Haraldsson 12:09
Intellecon
Competitiveness of the Geothermal Sector

DAY 3 THURSDAY, APRIL 26 (P)

Session A4 – Silfurberg A Hall

Timeslot from: 13:30-15:30

District Heating

Session Chair
Carine Chatenay, Verkís

Paul Voss 13:35
Euroheat and Power
Promoting Sustainable Heating and Cooling in Europe and Beyond

Henning Von Zanthier, LL.M. 13:54
Von Zanthier & Schulz
Heating Market and the Legal Framework in Poland

Sigsteinn Grétarsson 14:13
Arctic Green Energy Corporation
China District Heating Development

Erwan Bourdon 14:32
CFG Services
The Place of Geothermal Heating in the Paris Basin Energy Mix

Lovísa Árnadóttir 14:51
Samorka
Social Impact and Economic Benefits of District Heating

DAY 2 WEDNESDAY, APRIL 25

13:30-18:00

FIELD TRIP – 1 (see page no. 35)
Reykjanes Peninsula Geology and Nature Tour

FIELD TRIP – 2 (see page no. 36)
Hellisheidi Geothermal Power Plant

FIELD TRIP – 3 (see page no. 37)
Reykjavík and Hveragerdi: Hot Springs Capital of the World

19:30 – 23:30
Networking Dinner (see page no. 34)
– Hilton Hotel Optional

DAY 4 FRIDAY, APRIL 27

09:00 – 21:00
EXCURSIONS (see page no. 34)

Phase B DEVELOPMENT

DAY 3 THURSDAY, APRIL 26 (P)

Session B3 – Silfurberg B Hall

Timeslot from: 11:00-12:30

Setup a Successful Project

Session Chair
Hanna Björg Konráðsdóttir, GEORG cluster

Eiríkur Bragason 11:05
KS Orka
Accelerated Development of Geothermal Projects - Role Stories from Asia and Europe

Ari Ingimundarson 11:24
Mannvit
Overview of Risk Mitigation - Success Stories

Jill Haizlip 11:43
Geologica Geothermal Group
Solid Conceptual Modeling

Vilhjalmur Gudmundsson 12:02
IGC18 Committee Member,
Iceland Drilling & Green Energy Geothermal
Drilling Contract Strategies

DAY 3 THURSDAY, APRIL 26 (P)

Session B4 – Silfurberg B Hall

Timeslot from: 13:30-15:30

Project Updates

Session Chair
Auður Andrésdóttir. Mannvit

Magnús Ásbjörnsson 13:35
Reykjavik Geothermal
The Corbetti & Tulu Moye Projects

Peter Chege 13:54
KenGen
Successful Implementation of a Modular Geothermal Wellhead Strategy

David Carroll 14:13
Quantum Power
Menengai

Fikru Woldemariam 14:32
Ethiopian Electric Power (EEP)
Aluto, Ethiopia

Valur Knútsson 14:51
Landsvirkjun
Theistareykir Power Plant - Phase 1

Francisco G. Delfin Jr. 15:10
Maibarara Geothermal Inc.
Maibarara, Philippines

Phase C OPERATIONS

DAY 3 THURSDAY, APRIL 26 (P)

Session C3 – Kaldalón Hall

Timeslot from: 11:00-12:30

Impacting Operating Costs and Revenues

Session Chair
Valdís Guðmundsdóttir. ÍSOR - GeoSurvey

Ásgeir Margeirsson 11:05
HS Orka
Iceland Deep Drilling Project (IDDP-2): A Better Tomorrow

Sæunn Halldórsdóttir 11:24
ÍSOR - Iceland GeoSurvey
Geothermal Reservoir Management and Sustainable Use

Marta Rós Karlsdóttir 11:43
ON Power
Production and Re-injection: Holistic Approach

Dr. John O'Sullivan 12:02
University of Auckland
Production Modelling for Sustainability

DAY 3 THURSDAY, APRIL 26 (P)

Session C4 – Kaldalón Hall

Timeslot from: 13:30-15:30

New Revenue Streams

Session Chair
Kristín Vala Matthíasdóttir, HS Orka

Preston McEachern 13:35
PurLucid Treatment Solutions Inc.
Lithium Recovery from High Temperature Geothermal Brines

Anca Timofte 13:54
Climeworks
Capturing CO2 from Air

Andrea 'Andy' Blair 14:13
Upflow Ltd.
Geothermal Fuels Prosperity: How Geothermal Direct Use Projects Enable Regional Economic Growth

Souheil Saadi 14:32
Haldor Topsoe A/S
CO2 Scrubbing

Davíð Tómas 14:51
Codland
Collagen Production

Héctor Aviña Jiménez 15:10
iiDEA Group of the Institute of Engineering, UNAM
Opportunities to Develop Low-enthalpy Geothermal Projects in Mexico

DAY 3 THURSDAY, APRIL 26

16:00-18:00 **PLENARY CLOSING Silfurberg A & B hall**
Moderator: Juliet Ann Newson, Director, Iceland School of Energy
Keynote: Mr. Shinichi Kitaoka, President, Japan International Cooperation Agency
Keynote: Christiana Figueres, Former Executive Secretary UNFCCC and Convenor, Mission2020
Keynote: Ragna Arnadottir, Deputy CEO of Landsvirkjun
Keynote: Paul Voss, Managing Director of Euroheat & Power
Closing remarks: Thordís Gylfadóttir, Minister of Tourism, Industry and Innovation

18:00-20:30 **Women in Energy – Iceland**

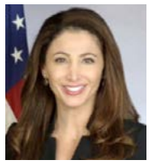
Phase A Session A1 – Silfurberg A hall – 10:30-12:30 **VISION**

Winning Public Acceptance

Gurbuz Gonul
IRENA
Session Chair

Mr. Gurbuz Gonul joined the International Renewable Energy Agency (IRENA) in 2014 as Head of Regions Unit and currently serves as Acting Director for the Country Support and Partnerships Division. Formerly, he worked as Senior Energy Economist of the Islamic Development Bank between 2010 and 2014, where he led the work for the development of an Energy Sector Policy for the Bank as well as complex loan and technical assistance projects in Africa and Asia. Between 2004 and 2010, Mr. Gonul served as a Senior Expert at the Energy Charter Secretariat in Brussels, where he spearheaded policy analysis, sectoral in-depth reviews, and regional and country reviews concerning energy investments, trade and transportation. He also held positions in the European Commission Delegation in Ankara and Turkey's Ministry of Energy since 1993.

Julia Nesheiwat
U.S. Department of State
Energy Security



Dr. Nesheiwat was appointed as Deputy Asst. Secretary of State for Implementation in the Bureau of Energy Resources. She was the Sr. Advisor & COS to the Special Envoy for Eurasian Energy (2008-2011); has served as Energy Policy Advisor in the Department's Economic bureau, with a focus on energy security issues for Europe and Central Asia; and has served as a CFR Fellow (2010-2011), where she conducted energy and economic policy research on the U.S. and Asia. A former U.S. Army Military Intelligence officer, Dr. Nesheiwat served consecutive tours in Afghanistan and Iraq. She also served as a Visiting Prof. at the U.S. Naval Postgraduate School and at the University of California San Diego lecturing on the geopolitics of energy and renewable energy technology in the 21st century. Dr. Nesheiwat also served on the Governing Advisory Council (Clean Energy) at the World Economic Forum. She earned a Ph.D. from Tokyo Institute of Technology; an M.A. from Georgetown University; and a B.A. from Stetson University.

Françoise Bey
Strasbourg Eurométropole
Social Acceptability

Françoise Bey is the Vice-President of Strasbourg Eurométropole. In her position she is responsible for a large number of services: cleanliness (of public roads, waste treatment, removal of graffiti, etc.); winter maintenance; collection of waste, recovery, disposal, and waste recycling; realization and grid management of heating systems; animal impound management; vehicle fleet management and city management workshops. She also serves as the Deputy Mayor of Strasbourg where she is responsible for implementing policies on women's rights and gender equality, physical activities for everyone and moderate activities. She is also a member of the departmental board of Bas-Rhin.

Sigurður St. Arnalds
GSAP Team
Geothermal Sustainability Assessment Protocol

Mr. Arnalds is a Senior Energy Advisor at Mannvit, engineering firm based in Iceland. He graduated as Civil Engineer M.Sc. at the Technical University of Denmark, DTU, in 1973 and has been with Mannvit and associated firms for a total of 45 years. He retired as Director of the Energy Division at Mannvit as well as Chairman of the Board in 2013 to become part time Senior Advisor in the field of Energy. Throughout the years, he has held leading technical, environmental and public relations roles in the development and realization of multiple significant projects in Iceland and abroad in the fields of hydroelectric energy, transmission, power intensive industry and geothermal utilization for heat and power. A decade ago he served in a working group for IHA (International Hydropower Association), for the development of an international multi stakeholder Sustainability Assessment Protocol, HSAP, now applied worldwide. Currently, Mr Arnalds is the Moderator and Project Manager for a Working Group from the Icelandic geothermal sector, working on adoption and transformation of the HSAP to application for geothermal projects and plants, GSAP.

Íris Baldursdóttir
Landsnet
Grid Stability Offered by Geothermal

Íris Baldursdóttir is the Executive Vice President of System Operations and ICT at Landsnet, the Transmission System Operator in Iceland. Prior to this she has held various leading positions within Landsnet where she has been responsible for System Development, Market and System Operations. She has participated in European and Nordic research projects, most recently as work package leader in the European project GARPUR which aims at improving reliability management of power systems and as general assembly member of the European project Migrate, which goal is to find solutions for the technological challenges the grid is currently faced with due to more renewables being connected to the grid. Íris earned a B.Sc. degree in electrical and computer engineering from the University of Iceland in 1999 and a master's degree in electrical power engineering from the Royal Institute of Technology in Stockholm in 2001. After her studies she worked in Sweden and Mexico for several years as a specialist and later project manager for ABB (an international engineering company) before joining Landsnet in 2006.

PANEL DISCUSSION

Phase A Session A2 – Silfurberg A hall – 08:30-10:30 **VISION**

Setting the Frame for Success

Ágústa Ýr Thorbergsdóttir
Navigo
Session Chair

Ágústa has over 15 years of experience working in Iceland and Internationally Founder and owner at Navigo consulting Iceland. She is passionate about direct use of geothermal for heating, industry and food production. Ágústa is an expert on EU climate and energy policy and international finance in climate and energy related investments. Ágústa has worked closely with companies across Europe on strategy and funding of geothermal projects in Europe and internationally and provided advise on policy and legal framework. She is a co-founder of 2 reports on the Icelandic Geothermal Industry.

Baldvin Björn Haraldsson
BBA Legal
Industry Leadership in Setting Best Practice

Admitted in Iceland and France and holds both a Master degree in International business management from ILERI in Paris and a Master degree in International Business Law from the University of Nice. Baldvin Björn has participated as legal advisor in many of the largest M&A transactions in Iceland during the past 20 years. Baldvin Björn has actively advised clients throughout his career in Energy Law, both in the field of Renewable Energy and in Oil and Gas. In the field of Renewable Energy law, Baldvin Björn has advised Icelandic clients in their ventures both domestically and all over the world. With regards to Oil and Gas, Baldvin Björn, along with the BBA team, advised the Icelandic Energy Authority on the first offering round of oil exploration and production licenses in the Dreki region, they also provided advice on the relevant laws and regulations. Baldvin speaks Icelandic, French and English.

Dr. Edda Sif Pind Aradóttir
Reykjavik Energy
Reaching Zero Emissions with Added Environmental, Social and Fiscal Value

Dr. Edda Sif Pind Aradóttir is the acting Managing Director of Department of R&D and Manager of Innovation and Strategic Planning at Reykjavík Energy. She is also the Project Manager of the international CarbFix research project. Edda has 15 years' experience in research related to reservoir management, chemistry and hydrology as well as project management in the field of environmental science. Edda holds a PhD degree in Reservoir Engineering from the University of Iceland, an MSc degree in theoretical chemistry and BSc degree in Chemical Engineering.

Efrain Villanueva Arcos
SENER
Geothermal Legislation

Since 2013, he has served as the General Director of Clean Energies at the Ministry of Energy, where he also coordinates the Fund for Energy Transition and Sustainable Use of Energy (FOTEASE), and acts as Technical Secretary of the Consultative Council for the Energy Transition. He was General Director for Coordinated Services in Public Education (1985-1991) and served as Chief of Staff at the Federal Secretary of Tourism (1991-1994). Mr. Arcos was Secretary of Education and Culture (1981-1987) and Secretary of Interior (2003-2004) for the State Government of Quintana Roo. In academics, he has served as Rector of the University of the State of Quintana Roo (1994-2002) and also as President of the Public Administration Institute in the same state (2010-2013). In political issues, he was elected as Legislator in the State Congress of Quintana Roo and appointed by his peers as President of the Mexican Conference of Legislators and State Congress nationwide.

Phoebe Parson
University of Waikato
NZ Geothermal Legislation: the Resource Management Act

Phoebe Parson is a doctoral candidate at the University of Waikato, New Zealand. Her research interest is in the law and regulation for geothermal resources, including comparative international law. Her research explores the policy and regulatory processes for geothermal resource development in New Zealand with a focus on the use of information and data used to manage geothermal developments. Her research has been supported by the Waikato Regional Council (NZ), and by the International Bar Association's Section on Energy, Environmental, Natural Resources and Infrastructure Law. Phoebe took her undergraduate law degree at Te Piringa Faculty of Law, University of Waikato, and continues her current research under the supervision with Prof Barry Barton, at the Faculty's Research Centre for Environmental, Resources and Energy Law.

PANEL DISCUSSION

Phase A Session A3 – Silfurberg A hall – 11:00-12:30 **VISION**

Competitiveness & Innovation

Auður Nanna Baldvinsdóttir
Landsvirkjun
Session Chair

Nanna is a Business Development Manager at Landsvirkjun, the National Power Company of Iceland and one of the founding directors of Women in Energy- Iceland. Prior to joining Landsvirkjun she was Project Manager of Economic Electricity Regulation at the National Energy Authority of Iceland. Before pivoting into regulation, Nanna was Head of Marketing and Relations at Geysir Green Energy, an equity investor in the geothermal space. She received dual bachelor's degrees in mathematics and economics from the SUNY Purchase, NY, USA and her MSc in Energy Policy from Imperial College London.

Christopher Engman
CRO/CMO Climeon
Why low temperature Heat power will be much larger than high temperature Heat power in a few years

Christopher Engman is the CRO/CMO at Climeon. Christopher is a serial entrepreneur having started companies such as Retain24, Taxisystem and Vendemore. Christopher has written a book about tax forecasting and is soon launching a book about the biggest deals in the World, Mega Deals. Many agree that Geothermal energy needs another packaging and positioning towards politicians, media and environmental thought leaders in order to play on a similar level as Solar and Wind.

Peter Harris
Green Energy Geothermal
Decreasing Equity Requirements

Peter Harris joined Green Energy Group in June 2011. He has over 20 years experience in financial leadership roles in International corporations, most recently as Senior Vice President, Finance of CIBER International, a leading Information Technology company headquartered in London. From 1994 to 2003, Peter was Group Finance Director for ECsoft Plc, where he was responsible for the execution of the company's M&A activity, internal and external financial reporting, investor relations and corporate finance. During his time at ECsoft and following its acquisition by CIBER in 2003, Peter played a lead role in the transformation of the company to an international IT services business with sustainable and profitable growth. Peter is a Fellow of the Chartered Institute of Management Accountants.

Sturla Sæther
Statoil
Economics of a GeoMagma Power Plant

Sturla Sæther is working as Principal Researcher in Statoil Research Center in Trondheim, Norway. Sturla works within Future Value Chain and Renewable Energy department. He has his Ph-d within energy system optimization and also experience from industry with focus on steam systems and power production. Sturla has worked within geothermal research for decades and are now focusing on high temperature geothermal systems which is called GeoMagma within Statoil. He has also experience from waste to energy industry as well as background as researcher in SINTEF.

Gad Shoshan
Ormat
Strategy for Fast Development

Gad Shoshan, a seasoned business developer since 1985, joined Ormat in June 2006, tasked with developing new territories, focusing on Europe. Gad has a long history in the hi-tech market in Israel and Europe, where he held high level positions in BD, sales, marketing and management. Since he joined Ormat, Gad's activities in the Turkish market have led to Ormat selling over 35 geothermal power plants, totaling over 600 MW of installed capacity. Gad is a frequent speaker at many geothermal events, where he is known for provoking new ideas and debates. Gad holds an MBA from BU and both a BA and an MA in cognitive psychology.

Dr. Gunnar Haraldsson
Intellecon
Competitiveness of the Geothermal Sector

Gunnar is an Icelandic economist. As a former director of the Institute of Economic Studies at the University of Iceland he worked on numerous projects related to natural resources, energy and the environment. He has also taught courses on these same topics at university levels. Gunnar also has previous experience working at the policy level, both as economic advisor at the Prime Minister´s Office as well as senior economist at the OECD in Paris. Recently, Gunnar has been involved in assessing the competitiveness of the Icelandic Geothermal Industry, in collaboration with the Icelandic Geothermal Cluster. A report on the main findings has been published recently. Gunnar founded Intellecon, an economic consultancy, in 2015 and is currently the Chairman of the Icelandic Fiscal Council, as well as Chairman of the Icelandic UNESCO Committee as well as a member of the Icelandic Science and Technology Policy Council. He obtained his BSc (econ.) and MSc, degrees from the University of Iceland, as well as postgraduate degrees and a PhD in economics from the University of Toulouse in France.

Phase A Session A4 – Silfurberg A hall – 13:30-15:30 **VISION**

District Heating

Carine Chatenay
Verkís
Session Chair

Carine Chatenay is the Marketing Manager of the Energy Division at Verkís Consulting Engineers. Her responsibilities encompass business development related to renewable energies: geothermal power and utilization, hydropower, wind, etc. She began working in Iceland soon after graduating as a civil engineer from the INSA Toulouse (France) in 2000 and has since been involved as a consultant on various geothermal district heating and power projects.

Paul Voss
Euroheat and Power
Promoting Sustainable Heating and Cooling in Europe and Beyond

Paul Voss joined Euroheat & Power as Managing Director in late 2013 from Danfoss District Energy, a global leader in District Heating and Cooling (DHC) technology. As Head of Public and Industrial Affairs, he led the company's efforts to engage with policy-makers at global, EU, national and local level. Prior to that, he was responsible for relations with EU institutions in the fields of energy and environment policy at the European LPG Association. He has also worked for CLAN Public Affairs as a public policy analyst. Paul has an in-depth understanding of EU policy and first-hand experience in managing cooperation between the private and public sectors in pursuit of shared goals, and has played a leading role in establishing the heating sector in general and district energy in particular as priority fields in EU energy policy. He has studied in Canada, France and Belgium and holds a Masters degree in European Public Policy.

Henning Von Zanthier, LL.M.
Von Zanthier & Schulz
Heating Market and the Legal Framework in Poland

Henning von Zanthier founded the law firm Von Zanthier & Schulz in Berlin in 1992 with its main focus on business law in Germany and Poland. In 1995 he opened the law office in Pozna (Poland). Since 2009, he is the first non-Polish attorney (radca prawny) to be admitted to the bar in Pozna . One of the main scopes of his professional activity is the renewable energy sector in Poland. He has more than 10 years of experience in this field and is well acknowledged with the subtleties of Polish energy law. He was the Chairman of Deutsch-Polnischer Juristen-Vereinigung e.V. (German-Polish Lawyers Association) and is currently the deputy President of the Board of Deutsch-Polnischer Windenergie-Club (German-Polish Wind Energy Club). Henning von Zanthier speaks German, English, French and Polish.

Sigsteinn Grétarsson
Arctic Green Energy Corporation
China District Heating Development

Mr. Gretarsson is Arctic Green Energy Corporation's Chief Executive Officer (CEO). He has extensive international business experience within the industrial and energy sector. Before taking up his current position he was the COO of Marel (MARL Nasdaq), largest listed company in Iceland. Mr. Gretarsson also serves as non-executive director in Sinopec Green Energy and Chairman of the Board of Promote Iceland. Mr. Gretarsson holds Master's Degree in Mechanical Engineering from the University of Illinois at Urbana-Champaign and Executive Education from INSEAD.

Erwan Bourdon
CFG Services
The Place of Geothermal Heating in the Paris Basin Energy Mix

After spending more than 10 years in academia working on fundamental research related to modern magma genesis, E. Bourdon joined BRGM in 2007 as regional geologist on the Caribbean island of Guadeloupe, where he managed projects in the field of geothermal energy (potential assessment), geological mapping, hydrogeology, natural risks management (landslides, floods, volcanic eruptions, seismic activity) and climate change. E. Bourdon joined CFG Services in 2012 and has been involved in geothermal projects worldwide through various tasks including fieldwork for geothermal project pre-feasibility, geothermal doublet drilling in the Paris Basin and international business development. Since 2015, he has been in charge of developing international business interests at CFG Services, project management and business development in many countries, including la Réunion Island, Andorra, Belgium, the Netherlands, Bulgaria, Nicaragua, Mexico, Indonesia, Ethiopia, Australia, UAE, Denmark, Iceland, etc.

Lovísa Árnadóttir
Samorka
Social Impact and Economic Benefits of District Heating

Lovisa is the PR and Communications Manager for Samorka, Iceland Energy and Utilities. Samorka is the association of all energy and utility companies in Iceland and member companies are about 50. Before joining Samorka in 2016, Lovisa worked for the National Broadcasting Service (RÚV) in Iceland for 11 years. Her roles at RÚV included: Editor for the radio morning news, sports reporter, executive producer for election TV, and producer & content manager for entertainment programs on TV, radio and online, related to The Eurovision Song Contest. Lovisa also spent 5 years as a marketing consultant at Birtingahúsið.

Phase B Session B1 – Silfurberg B hall – 10:30-12:30 **DEVELOPMENT**

Financing Market Growth

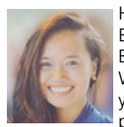
Rikardur Rikardsson
Landsvirkjun Power
Session Chair

Rikardur Rikardsson is Managing Director of Landsvirkjun Power, a subsidiary of Landsvirkjun, Iceland´s National Power Company. Landsvirkjun Power offers international hydro and geothermal power advisory and co-development partnerships. The company partners with engineering and financial services to offer complete solutions and will consider co-investment opportunities. In his previous employment Mr. Rikardsson led programmable chip maker Xilinx's European service product offering, then worked in banking and eventually as Director at Glitnir Bank before going into consulting at M&A advisory Capacent Glacier and later McKinsey&Co. Since 2011 Mr. Rikardsson has been with Landsvirkjun where, prior to taking on Landsvirkjun Power, he was Director of Sales and Business Development. Mr. Rikardsson completed his M.Sc. in electrical engineering from Stanford University in 2002 and PED from IMD, Lausanne, in 2017.

Peter Johansen
World Bank Group
Introduction and Strategy

Peter Johansen is a Senior Energy Specialist in the World Bank's Energy Practice based in Washington, DC. But primarily working in East Asia. He holds a Master's Degree in Engineering from the Technical University of Denmark and has more than 35 years of energy sector experience in planning, preparing and implementing a wide range of energy projects in Europe, East and South Asia, Africa, and the Middle East. He is the Task Team Leader for WB's geothermal projects in Indonesia, including financing construction of the 110 MW Ulubelu 3&4 in South Sumatra, the 40 MW Lahendong (Tompaso) 5&6 in Northern Sulawesi, and a $105 million Geothermal Energy Upstream Development Project that is financing government sponsored exploration drilling for several new geothermal sites.

Huong Mai Nguyen
World Bank Group
Introduction and Strategy



Huong Mai Nguyen is an Energy Specialist in the World Bank's Energy Practice based in Washington, DC. She has eight years of experience in planning, preparing and implementing a range of renewable energy and energy access projects in Indonesia, Myanmar and Mongolia, as well as improving governance of extractive industries in resource-rich countries in the Africa Region. Huong currently supports the Government of Indonesia in developing a new Geothermal Resource Risk Mitigation (GREM) Facility aimed at scaling up the utilization of Indonesia's geothermal resources. Prior to joining the World Bank, Huong worked at the Institute of Southeast Asian Studies in Singapore conducting extensive research on the environmental impacts of hydropower development in the Greater Mekong Sub-region and the political economy of water and food security in the lower Mekong region.

Johannes Scholl
KFW Bankengruppe
Introduction and Strategy

Johannes Scholl is Head of Division (Energy and Financial Sector) in the Latin America and Caribbean Department at KfW, the Executing Agency of the official bilateral German Financial Cooperation. He oversees a portfolio of over EUR 4 billion of energy investments in Latin America, including the German and EU support to the Geothermal Development Facility (GDF) for Latin America, founded in 2016. Prior to his current position, he was Project Manager for Urban Development and Mobility in KfW's South Asia Division and KfW Sector Economist. Before joining KfW in 2010, he was Advisor to the German Federal Ministry of Economic Cooperation and Development (BMZ). He studied Cultural Studies and Economics at Universität Passau (Germany) and Universidad de Córdoba (Spain).

Hiroto Kamiishi
Japan International Cooperation Agency (JICA)
Introduction and Strategy

Mr. Hiroto Kamiishi is the Director of Team II, Energy and Mining Group, Japan International Cooperation Agency (JICA). Team II handles energy and mining development projects in African and LAC countries. His responsibilities include the management of various cooperation projects for energy development in Africa, in fields such as geothermal (Kenya, Djibouti, and Ethiopia), hydropower (DRC) and diesel power (Sierra Leone), and cooperation projects for formulating power development master plans (Mozambique, Tanzania, and Angola). His career at JICA began in 1991 and his work has involved their overseas office in Indonesia, strategic planning, program management of ASEAN countries, and aid coordination. Most recently, serving as senior representative of JICA's USA office, he has been responsible for promoting collaboration with other donors, such as the World Bank and USAID. He received a bachelor's degree (Liberal Arts) from International Christian University (Japan) and a master's degree (Public Administration) from Columbia University (USA).

Mehmet Erdem Yasar
EBRD
European Bank for Reconstruction and Development (EBRD)

Erdem Yasar began his banking career in Istanbul at Citigroup Corporate Banking Division in 2008 and has been working at the EBRD's Istanbul office since 2010, focusing on energy and infrastructure. He has led the two EBRD-backed geothermal projects in Turkey: 162 MW Gurmat extension and the 66.5 MW Zorlu Kizildere III extension. Erdem Yasar holds a Master of Economics from London School of Economics and a BA in Economics from Koc University, Turkey.

Christiaan Gischler
Inter-American Development Bank (IDB)
Introduction and Strategy

Mr. Gischler is the focal point for sustainable energy within the Inter-American Development Bank (IDB), with over 15 years of experience. Currently, he is leading several initiatives and promoting sustainable energy projects throughout LAC. Mr. Gischler has worked with the Global Environment Facility, Clean Technology Fund and more recently with the Green Climate fund in climate change mitigation. He is the practice leader for geothermal energy projects and for regional energy initiatives in the Caribbean within the IDB Energy Division. Mr. Gischler has lead projects and financial initiatives, in sustainable energy, for over US$ 3.7 billion. He has also worked for the National Commission for Environment (Chile) and in the private sector. He has taught courses in environmental engineering in Chile and Sweden and he holds two Engineering degrees in chemical engineering and biotechnological engineering from the University of Chile and a MSc degree in environmental engineering and sustainable infrastructure from KTH in Sweden.

Phase B Session B2 – Silfurberg B hall – 08:30-10:30 **DEVELOPMENT**

Project Updates

Hildur Magnúsdóttir
Iceland Drilling
Session Chair

Hildur Magnúsdóttir is a member of the Iceland Drilling team in business development, sales and marketing. Her key tasks have included tendering and negotiations for drilling projects worldwide. Hildur graduated with a B.Sc. degree in Business Administration from Reykjavik University in 2008 and has been with Iceland Drilling for more than 10 years where she has been involved with projects domestically and internationally. She has experience as a board member and is the chairman of the board of Ræktunarsamband Flóa og Skeiða, a domestic drilling company.

Kato Kabaka
Tanzania Geothermal Development Co. Ltd.
TGDC Power Plant Development

Kato Kabaka received his BSc in Geology in 1983 and MSc in Applied Geology in 1991 both from the University of Dar es Salaam (UDSM), Tanzania. He obtained a Diploma in Engineering geology from Imperial College, London in 1995, MSc Engineering Geology from University of London in 1996, and MBA from Business School in the University of Dar es Salaam in 2006. Kato Kabaka is employed by the Tanzania Geothermal Development Company, Ltd (TGDC) in Tanzania. He held the position of the Director for Business Development at TGDC from 2014 to 2016 and Acting General Manager from 2016 to 2017. Presently, he is the General Manager and CEO of TGDC. He has been involved in exploration planning of several volcano-based and fault-based geothermal systems in Tanzania. His areas of interest include geothermal project planning, financing, and direct use applications of geothermal energy.

Dan Batscha
Ormat
Ngatamariki Case

Dan Batscha is a senior thermodynamic engineer in ORMAT responsible for all thermodynamic design aspects. Dan Batscha joined Ormat in 1988 after working for fossil power plant design and has since risen in Ormat to be the authority in power plant design. Danny has vast experience in developing power cycle solutions for the geothermal and waste heat applications and design of related equipment such as turbines, shell & tube and air cooled heat exchangers. Following his view of improvement & development, Danny is fully engaged with field tests of equipment and performance analysis of power plants. Danny holds a B.Sc. in Mechanical Engineering, has 16 patents to his name and has written scientific papers on the efficient use of geothermal energy.

Ural Halaçoğlu
Zorlu Energy Group
Turkish Geothermal Development - Zorlu Case Study

Ural Halaçoğlu has been working in Zorlu Energy Group for 5 years as a Project and Business Development Assistant Manager in Investments Department. He is mainly focused on Geothermal Power Plant projects both in Turkey and all over the world. He obtained his Master' s Degree in Yıldız Technical University in 2015. He is now studying his Ph. D. at the same university by focusing on Geothermal Power Plant Design and Optimisation. He has contributed the investment, construction and commissioning activities of 45 MWe Alaşehir-I GPP and 165 MWe Kızıldere-III GPP which has the largest geothermal plant capacity in Turkey. He is now responsible for the development of new projects and fields.

Dr. Kayad Moussa Ahmed
Djibouti Geothermal Development Office (ODDEG)
Geothermal Strategy in Djibouti

Dr. Kayad Moussa, PH.D in Hydrology and Hydrogeology from the School of Mines in Paris, is the Managing Director of the Djibouti Geothermal Development Office (ODDEG). He is a renowned geothermal expert, distinguished scholar and accomplished manager. He has 10 years' experience in developing and implementing major geothermal projects. Since 2014, he's been the National Coordinator for the Assal Geothermal Project in Djibouti, also serving as head of the drilling program. In 2008 Dr. Kayad Moussa joined the Center for Studies and Research of Djibouti (CERD) and participated in extensive surface exploration to identify geothermal fields throughout the country. From 2010-2013 he worked on the "GEISER" project. As part of this work, he set up a 3D stochastic model with geometric properties and petrophysical parameters derived from data obtained at Rosemanowes, Cornwall, UK. As a result of this work, he proposed an innovative technique to mitigate induced seismicity during reinjection.

Q&A

QUESTIONS & ANSWERS

Phase B Session B3 – Silfurberg B hall – 11:00-12:30 **DEVELOPMENT**

Setup a Successful Project

Hanna Björg Konráðsdóttir
GEORG geothermal cluster
Session Chair

Hanna Björg Konráðsdóttir graduated with a Master of Law in 2014 with an emphasis on energy law. Hanna Björg joined the GEORG geothermal cluster in 2017 and has been working as a legal adviser and project manager in the fields of geothermal research and utilization, and natural resources. Hanna Björg is responsible for legal matters and contract management in projects related to domestic and international energy, and natural resources. Prior to joining GEORG, she worked with the National Energy Authority where she was responsible for managing international projects within the EEA Financial Mechanism. She also has extensive experience in administrative law, natural resources law and environmental law. Hanna Björg has worked as an Energy Law Lecturer at the Bifröst University Faculty of Law.

Eiríkur Bragason
KS Orka
Accelerated Development of Geothermal Projects - Role Stories from Asia and Europe

Mr. Bragason is the CEO of KS Orka and a highly accomplished expert in geothermal resource development and power project management, with more than 25 years experience in project development. Prior to joining KS Orka, he was the Chief Project Manager for various projects undertaken by Reykjavik Energy and by his own consulting company. He was also responsible for notable power projects in Iceland, Brazil, Spain, Germany, China, as well as the Philippines. Mr. Bragason holds degrees in Engineering Structures from TU Berlin, as well as Business and Administration.

Ari Ingimundarson
Mannvit
Overview of Risk Mitigation - Success Stories

Dr. Ari Ingimundarson is discipline manager for geoscience at Mannvit hf. Mannvit is an international consulting firm with decades of experience across all disciplines of geothermal development. He is a senior mechanical engineer and holds a PhD in Automatic Control from Lund Technical University. Dr. Ingimundarson has extensive geothermal project management experience which spans a wide field, from concept design to the commissioning of geothermal power plants. Dr. Ingimundarson has been involved in projects in Iceland, Germany, El Salvador, Nicaragua, USA, Hungary, Croatia, Chile, Mexico and the Philippines. He has also been heavily involved in business development with client visits, preparation of commercial proposals, contracting and negotiation. Dr. Ingimundarson sits on the Board of Directors of the Icelandic Geothermal Cluster. He is also a board member of the Geothermal Association of Iceland (GAI).

Jill Haizlip
Geologica Geothermal Group
Solid Conceptual Modeling

Ms. Haizlip has over 30 years of professional experience in the fields of geothermal resource evaluation, geology and hydrogeochemistry applied to a variety of geothermal exploration; resource assessment, testing and characterization; and development projects. Her expertise in chemistry of geothermal fluids is applied to geothermal resource development in: reservoir characterization and temperatures, non-condensable gases, scaling and corrosion, hydrogen sulfide abatement, steam treatment and other geochemical considerations. She has worked extensively with multi-disciplinary teams to develop conceptual and numerical models of geothermal systems as a basis for geothermal development planning and decision making and has managed comprehensive geothermal resource development projects. She is currently President and Principal Geochemist of the geothermal resource consulting firm: Geologica Geothermal Group, Inc. Ms. Haizlip has extensive experience working on development of geothermal systems worldwide from Djibouti, Indonesia, Kenya, Zambia, Turkey, Caribbean; as well as The Geysers, the Salton Sea, Nevada and other geothermal resources in the U.S.A.

Vilhjalmur Gudmundsson
IGC18 Committee Member, Iceland
Drilling & Green Energy Geothermal
Drilling Contract Strategies

Mr. Vilhjalmur Gudmundsson has spent over 12 years being engaged in geothermal developments internationally, mostly for the Iceland Drilling Company (IDC). Being responsible for IDC's international project marketing and sales for 8 years, until December 2012, he rejoined the company in February 2016. Vilhjalmur has been employed as Director of Business Development for Green Energy Geothermal (GEG), promoting Geothermal Wellhead Power Plants in the Caribbean and Latin America region over the past three years. Vilhjalmur continues working for GEG concurrently with his work at IDC. Prior to his work in the geothermal sector, Mr. Gudmundsson was Director of Business Development at the Trade Council of Iceland, having years of experience in international marketing projects, responsible for marketing actions in Central & East European countries, Asia, Russia, and Chile. Vilhjalmur has a Cand. Oecon Degree from the University of Iceland and a master's degree in International Business from Lund University (Sweden).
Drilling Contract Strategies

Phase B Session B4 – Silfurberg B hall – 13:30-15:30 **DEVELOPMENT**

Project Updates

Auður Andrésdóttir
Mannvit
Session Chair

Auður Andrésdóttir is a geologist and senior environmental expert in the Civil and Environmental Division at Mannvit. She has been involved in geothermal projects at Mannvit for 17 years since joining the company in 2001. She has extensive experience, having worked on geothermal projects in Iceland and internationally. Her fields of specialization include project management, environmental impact assessment, consulting with authorities, presentations and writing environmental reports on geothermal projects. Along with her experience as a geologist and environmental specialist, she is also experienced in geochemistry, geochemical analysis and research. Auður Andrésdóttir was employed as an environmental expert at the Planning Agency of Iceland before joining Mannvit, where she was involved in reviewing numerous EIA projects. She also has nine years' experience as a research scientist at the Science Institute, University of Iceland.

Magnús Ásbjörnsson
Reykjavik Geothermal
The Corbetti & Tulu Moye Projects

Magnús Ásbjörnsson holds an MBA from London Business School, London and Columbia Business School, New York, and a Bachelor degree (First in Class) in International Relations & Diplomacy with a Minor in Economics from Schiller International University. Before joining RG, Magnus was a Senior Associate with Booz & Company (formerly Booz Allen Hamilton) and previously at Marakon Associates, both leading firms in the field of management and strategy consulting worldwide. Magnus has twelve years of advisory and general management experience spanning fields such as investment, business strategy, planning, organization design, and change management work, working primarily with C-level executives and cabinet level government officials across five continents. Magnus spent four years living in East Africa and speaks five languages.

Peter Chege
KenGen
Successful Implementation of a Modular Geothermal Wellhead Strategy

Peter Chege is Assistant Manager, responsible for the Geothermal Wellhead plants at Kenya Electricity Generating Company Ltd. (KenGen). He has been responsible for the successful implementation of KenGen's geothermal wellhead power plant strategy. With initial studies on possible wellhead power plant development back in 2001, KenGen concretely explored the implementation of wellhead plants in 2007 with the tender for a pilot plant in 2009. Work on the 5.5 MW pilot plant started in 2010, with its start of operation in 2012. Today, KenGen operates 15 geothermal wellhead plants with a combined installed capacity of 81.1 MW, representing around 15% of KenGen's installed geothermal power generation capacity (as of April 2018).

Phase B Session B4 - speaker no. 3

David Carroll
Quantum Power
Menengai

A British citizen, David first worked for 16 years in a nuclear facility in the UK and is a multi disciplined engineer with a practical "hands-on" background. David has a First Class B.Eng Honours Degree in Mechanical Engineering and numerous vocational qualifications in Control & Instrumentation and Electrical disciplines. He has first-hand experience with the development, design, and operation of equipment such as steam turbines, medium speed diesel engines, all types of control and process equipment, high speed rotating and static mechanical plants. For the last 9 years, David has been based in Nairobi, Kenya and has built up extensive experience in the development, contracting, financing and execution of Independent Power Projects in Sub-Saharan Africa. David runs Quantum Power's East Africa team and is responsible for all business and project development activities.

Fikru Woldemariam
Ethiopian Electric Power (EEP)
Aluto, Ethiopia Fikru Woldemariam

Fikru Woldmariam is a senior staff member at Ethiopian Electric Power (EEP), the national utility managing electricity generation, transmission and substation projects and operation throughout the country. He has been working for EEP since 1991 at different levels including as Departmental Director and Mega Projects Management. He received his BSc. in Electrical Engineering from Addis Ababa University (1991). He is pursuing a postgraduate degree (MBA) offered by Lincoln University (USA)/ Western University College (Ethiopia) via an extension program. He has also attended various short term training programs. He has worked as Deputy Project Manager for Gibe III Hydroelectric Project (consisting of 10 generating Units, 187 MW each, with a total capacity of 1,870 MW), commissioned in 2016. As Deputy Project Manager, he had made significant management and technical contributions for the successful completion of the project. Since January 2016, he has been working as Project Manager for the Geothermal Sector Development Program.

Valur Knútsson
Landsvirkjun
Theistareykir Power Plant - Phase 1

Valur joined Landsvirkjun, the National Power Company of Iceland, in 1996, first as the Head of Technical Services related to the refurbishment of Landsvirkjun's various Hydro Power Plants, then later as Head of the Technical Department within the Energy Division of Landsvirkjun. From 2012, Valur has been in the position of Chief Project Manager for the design phase, tender- and contractual phase, and the construction and commissioning phase of Theistareykir Geothermal Power Plant, 2×45 MWe. The plant has now been commissioned. Before joining Landsvirkjun, Valur worked as the General Manager of Raftákn Ltd. Consulting Engineers, an engineering office specialized in control systems and refurbishment projects of Industrial Plants, Municipal Energy Utilities and Power Plants. Valur holds a BS degree in Electrical Engineering, a master's degree in Project Management (MPM) and is certified as an IPMA–B Project Manager.

Francisco G. Delfin Jr.
Maibarara Geothermal Inc.
Maibarara, Philippines

Mr. Francisco Delfin Jr. is President & Board Director of Maibarara Geothermal Inc. (MGI) and Vice President of MGI's parent company PetroEnergy Resources Corp. His over 30 years of professional experience cover private industry, government service, academia, and non-profit work. He has decades of experience in geothermal exploration and development with PNOC-EDC, served as Assistant Secretary and Undersecretary of the Philippines' Department of Energy (2007), as President of the Geological Society of the Philippines (2009), and as Contributing Editor and Associate Editor of the Journal of the Geological Society of the Philippines. While working at the University of the Philippines (UP) – National College of Public Administration and Governance (2005-2009), he taught undergraduate and graduate courses in public policy. Mr. Delfin graduated with a BSc in Geology from UP, an MSc in Geology from the University of South Florida and a Ph.D. in Public Administration from the University of Southern California.

Phase C Session C1 – Kaldalón hall – 10:30-12:30 **OPERATIONS**

Impacting Operating Costs and Revenues

Sunna Björg Reynisdóttir
Efla
Session Chair

Ms. Sunna Björg Reynisdóttir is a project manager at the geothermal division at EFLA consulting engineers. Her key tasks have been business development and project management. She oversees new business opportunities and tenders related to renewable energy, geothermal power and direct geothermal utilization. As well as focusing on development of projects, planning and project team management. Since joining EFLA in 2012 Sunna has been actively working on international geothermal projects, primarily in Kenya and Turkey. Prior to joining EFLA she worked on research in the field of mechanical engineering at the Hong Kong Polytechnic University and as an Assistant Teacher at the University of Iceland. Sunna sat as a board member in the Project Management Association of Iceland and was chairman of IPMA Young Crew Iceland. Sunna holds a degree in Industrial Engineering from the University of Iceland.

Trent Philipp
Reykjavik Geothermal (RG)
Open-book Contracts for Geothermal

Trent Philipp is a member of the board of RG and serves as Regional Director for the Americas with responsibility for projects, partnerships and initiatives across the region. He is a founding partner of Ambata Capital Partners, a merchant bank focused on clean energy and sustainability. In this capacity, he led the investment in RG as well as several advisory initiatives across renewables and sustainability. Prior to RG and Ambata, Trent was head of sales for the UK & Ireland at Soleil Securities, an independent equity research and brokerage firm. He was responsible for initiating investment banking efforts in the alternative energy sector. He is actively involved in conservation and nonprofit efforts focused on sustainability, serving on the National Council of World Wildlife Fund (WWF) as well as working with Riverkeeper and the Fisheries Conservation Foundation. Trent has a bachelor's degree in political science from the University of Richmond and an MBA from NYU's Stern School of Business.

Eng. Johnson P. Ole Nchoe
Geothermal Development Company(GDC)
Status of Geothermal Development in Menengai, Baringo-Silali Projects

Eng. Johnson P Ole Nchoe is the Managing Director & CEO of the Geothermal Development Company (GDC). He is a Corporate Member of the Institution of Engineers of Kenya (IEK). With over 30 years of experience in the Energy Sector in leadership and management, Eng Nchoe has served in various capacities at the Ministry of Energy & Petroleum, Kenya Power and GDC. He has vast experience in Administration, Telecommunication, Information Communication Technology (ICT), Innovation and Research, Power Systems Management and Renewable Energy. He holds a master's degree in Business Administration (MBA) and a BSc in Electrical Engineering, both from the University of Nairobi.

Hezy Ram
Greenmax Capital Advisors
Ownership Structure and its Effects

Hezy Ram is an accomplished industry leader, with over 25 years of experience in corporate and project development in the renewable energy space. He is well known for pioneering geothermal projects around the world (mainly in the USA and Central America). Mr. Ram was with Ormat Group, a world leader in the geothermal power plant sector, between 1979-1993 and also 2000-2007. As the Executive Vice President of Business Development at Ormat technologies, he gained extensive project development experience in renewable energy, including site acquisition, permitting, power plant construction, power purchase agreements, transmission, project operation and maintenance, financing and tax monetization. During the years 2000-2007, Mr. Ram was instrumental in creating shareholder value for Ormat Technologies to the tune of $2 Billion. Mr. Ram is known as an inspirational manager who is uniquely qualified to deal with the technical and commercial aspects of the renewable energy business.

J. Rúnar Magnússon
Efla
Where are all the Private Investors in the Geothermal Sector?

J. Rúnar Magnússon is a mechanical engineer with over 30 years' experience in geothermal utilization. He has experience in modelling and conducting feasibility studies of geothermal power plants, of detailed designing of gathering pipes, steam applications, buster and re-injection pump stations. He also has gained extensive experience in power generation from high and low enthalpy geothermal fields and in binary (ORC) power plant design. Design and operation of SPA and swimming pool systems are part of his experience, which he has gained working on nature pool systems connected to direct use utilization, all the way up to large-scale SPA systems cascading with flash power plants. J. Rúnar Magnússon also has vast knowledge and experience in the design of large-scale freezing systems.

Tryggvi Þór Herbertsson
Taurus slf.
Where are all the Private Investors in the Geothermal Sector?

Dr. Tryggvi Þór Herbertsson is the Founder & Chairman of Taurus slf. Prior to which he was a Member of Parliament (MP) in Iceland and a Professor of Economics at Reykjavik University. He was CEO of Askar Capital Ltd, served as Special Economic Advisor to the Prime Minister of Iceland during the collapse of the Icelandic banking system (2008), was Director of the Institute of Economic Studies and a Professor of Economics at the University of Iceland. Dr. Herbertsson has been on the Board of Directors and a consultant to many private companies, banks, and pension funds in Iceland and internationally. He has been a consultant to institutions and international organizations (the World Bank, IMF, the European Commission, the Nordic Council of Ministers, the OECD, and the WEF), to numerous governments and to Fortune 500 companies. Currently, Dr. Herbertsson sits on the Board of Directors of Quadran Iceland, on the advisory board of FinEquia International Inc., and Mercantile Ports & Logistics.

Phase C Session C2 – Kaldalón hall – 08:30-10:30 **OPERATIONS**

Plant Technologies & Knowledge Transfer

Dr. Bergur Sigfússon
Reykjavik Energy
Session Chair

Bergur Sigfússon is the manager for environment and value streams at the Department of R&D at Reykjavík Energy. His responsibilities include power plant process monitoring, groundwater monitoring and overseeing the quantification of gas emissions and re-injections from power plants. He is involved in quality assurance of gases and fluids delivered to customers. Prior to joining Reykjavik Energy he worked at the Joint Research Centre of the European Commission in Petten, The Netherlands. There he mapped the Geothermal Sector in Europe for the identification of challenges and opportunities facing the sector as it plays a more important role in Europe's future low carbon economy. Bergur holds a PhD degree in soil science from the University of Aberdeen.

Dr. Jürgen Peterseim
Erk Eckrohrkessel GMBH
Lessons Learned from other Industries

Dr. Jürgen Peterseim is ERK's Director for strategy & new products. After finishing his industrial engineering degree in 2003 in Germany, he joined ERK as a project manager for industrial scale renewable and energy efficiency projects. From 2007-2015, he lived in Australia and was working on concentrated solar power and energy efficiency projects. Between 2011-2014, he completed his PhD on concentrated solar power hybrid plants at the University of Technology, Sydney, where he is still an Honorary Associate. Since his return to Germany in 2015, he has concentrated on transferring existing thermal engineering expertise to new products and markets, in order to shorten product implementation times and minimize technology risk.

Dr. Jasbir Gill
Nalco Water
Managing Silica Deposits in Geothermal

Dr. Gill has been with Nalco R&D for 39 years. He obtained his Ph.D. in Chemical Technology from the IIT, Roorkee, in India, was a visiting scholar at the University of Perugia and University of Salford (1974-76), and a research professor at the State University of New York. He joined Calgon in 1979 where he managed scale/deposit/corrosion core-competency. Currently he is a Senior Research Fellow at ECOLAB/Nalco Company in the Water Centric R&D. He is the inventor/co-inventor of 40 US patents and several foreign patents and has published over 125 papers. His research interests include, Geothermal, Oil-sand and Heavy Oil, Ion exchange, Crystal Growth, Corrosion and Aqueous Thermodynamics, and Kinetic Modeling. He is the recipient of multiple Chairman's awards, Golden Odyssey, IR-100 award and DOE grant with Argonne National Lab. He is a member of NACE and GRC.

Joseph Bonafin
Turboden
Binary Power Plants for the High Enthalpy Well-head Generation

Joseph Bonafin holds a master's degree in Mechanical Engineering, with a specialization in power generation systems. In 2009 he joined Turboden, a Mitsubishi Heavy Industries group company. After 9 years of extensive business experience, he currently manages the geothermal activities as sales and business development manager at Turboden. Joseph is involved in all the project phases, from early technical development to finalization of the commercial negotiation. Currently he follows geothermal projects globally with specific expertise in power plant development and EPC projects.

Davíð Ó. Benediktsson
Verkís
Optimization of Existing Systems

Davíð Benediktsson received his master's degree in Mechanical Engineering from the University of Iceland. Mr. Benediktsson has worked at Verkís Consulting Engineer since 2007 and has experience in process engineering for geothermal power plants. He has been involved in various design tasks in geothermal power plants such as a balance of plant design, pressure drop calculations, cost estimates and feasibility studies and has extensive experience in design and assessment of binary power plants.

P

PANEL DISCUSSION

Phase C Session C3 – Kaldalón hall – 11:00-12:30 OPERATIONS

Securing Long-term Sustainability

Valdís Guðmundsdóttir
ÍSOR - Iceland GeoSurvey
Session Chair

Valdís Guðmundsdóttir works as a reservoir engineer and well logging technician at Iceland Geosurvey. She has been involved in numerous projects to do with resource assessment and geothermal management such as the compilation and revision of conceptual models (e.g. for Olkaria in Kenya, Reykjanes and Krafla in Iceland), the revision of large numerical models (for the Olkaria, Kenya and Krafla, Iceland), monitoring geothermal reservoirs (Reykjanes and Svartsengi, Iceland), analysis and modelling the response of geothermal reservoirs to production. Additionally, she is involved in logging, testing and evaluating geothermal wells. She graduated from Imperial College, London in 2003 where she studied physics and L'University de Paris-Sud in 2005 with a master's degree in physics, with an emphasis on medical imaging techniques. She has taught and supervised students at the United Nations Geothermal Training Program (UNU-GTP), Reykjavík University and the Keilir Institute of Technology.

Ásgeir Margeirsson
HS Orka
Iceland Deep Drilling Project (IDDP-2): A Better Tomorrow

Mr. Margeirsson, CEO of HS Orka, is highly experienced within the geothermal sector with over 20 years of experience in the industry. Mr. Margeirsson served as Chairman of HS Orka 2010-2013, before becoming HS Orka's CEO. He serves as a board member of the Blue Lagoon and previously served as a board member and Chairman for the Geothermal Association of Iceland. Other previous positions include CEO of Magma Energy Iceland, CEO of Geysir Green Energy, COO and Deputy CEO of Reykjavik Energy and Technical Director of Iceland Drilling Co. Mr. Margeirsson has also served on the boards of several geothermal companies in three different continents and has been involved in geothermal exploration and development in various countries for over 20 years. Ásgeir Margeirsson holds a Lic. Techn. degree in Construction Management from the Technical University in Lund, Sweden and a C.Sc. in Civil Engineering from the University of Iceland in Reykjavik.

Sæunn Halldórsdóttir
ÍSOR - Iceland GeoSurvey
Geothermal Reservoir Management and Sustainable Use

Sæunn Halldórsdóttir is Head of Geosciences at Iceland GeoSurvey (ÍSOR). She is a senior expert in geothermal reservoir engineering with over 10 years of experience from the geothermal sector. Her main projects involve conceptual model development, resource management, capacity building and training of geothermal specialists, numerical model development incl. TOUGH2/iTOUGH2 and resource assessment incl. volumetric assessment of geothermal reservoirs. She has been heavily involved in training and lecturing in Iceland and abroad, and has been a member of the Studies Board of the United Nations University Geothermal Training Programme (UNU-GTP) in Reykjavik since 2014. Sæunn is actively involved in several EU-funded projects, e.g. IMAGE and GeMEX as WP leader. Sæunn graduated with an M.Sc. in Geophysics in 2006 from the University of Iceland, and has since been employed at the Icelandic Met Office and ÍSOR. Countries of work experience include, Philippines, Kenya, Costa Rica, Nicaragua, Mexico, Turkey, Portugal and Romania.

Marta Rós Karlsdóttir
ON Power
Production and Re-injection: Holistic Approach

Marta Rós Karlsdóttir is the managing director of natural resources at ON Power. She is responsible for resource management, strategic planning and stakeholder relations regarding resource utilization. She is also responsible for the company's climate actions. Marta Rós holds an MSc degree in mechanical engineering from the University of Iceland with a focus on geothermal utilization and energy efficiency. Prior to joining ON Power, she was a doctorate student and lecturer at the University of Iceland and the University of Akureyri, as well as a guest lecturer at Reykjavik University and the United Nations University – Geothermal Training Programme (UNU-GTP). Her research involves life cycle assessment of geothermal utilization, including carbon footprint calculations.

Dr. John O'Sullivan
University of Auckland
Production Modelling for Sustainability

Dr O'Sullivan has worked on a number of geothermal projects ranging from established fields to green field sites. He specializes in using numerical models to assist with strategic decision making and developing innovative modelling approaches to solve real-world problems. He is committed to the sustainable growth of global access to geothermal resources by helping to deliver successful projects through new research and by applying best practices in geothermal reservoir engineering and modelling. He teaches on the Postgraduate Certificate course in Geothermal Energy Technology and supervises research projects for PhD and master's students.

Phase C Session C4 – Kaldalón hall – 13:30-15:30 OPERATIONS

New Revenue Streams

Kristín Vala Matthíasdóttir
HS Orka
Session Chair

Kristín Vala Matthíasdóttir is the VP for Resources at HS Orka, the third largest power company in Iceland. She is the chairman of the Iceland Geothermal Association and a board member of the International Geothermal Association. She has over 10 years of experience in chemistry and reservoir management as well as extensive experience within the geothermal industry. She holds a M.Sc. degree in Chemical Engineering from the University of Lund, Sweden, and a B.Sc degree in Chemical Engineering from the University of Iceland. Prior to joining HS Orka, Kristín Vala worked for Magma Energy Iceland, Geysir Green Energy and Enex.

Preston McEachern
PurLucid Treatment Solutions Inc.
Lithium Recovery from High Temperature Geothermal Brines

Dr. McEachern, is a respected leader in water management in the oil and gas industry, with 23 years of experience solving water treatment challenges. He is actively engaged by clients in advisory roles, holds three faculty positions at Canadian Universities, and was the Vice President of Research and Development at Tervita prior to forming Purlucid Treatment Solutions. PurLucid brings new technologies to tackle the problems facing water treatment.

Anca Timofte
Climeworks
Capturing CO2 from Air

With a background in chemical and environmental engineering, Anca Timofte has been working on the development and optimi-zation of systems capturing carbon dioxide out of air since 2013. Today, she is leading the process engineering team at Climeworks, a Zurich-based clean-tech company developing solutions to achieve the Paris Agreement climate goals and a low-carbon future. In 2017, Climeworks commissioned the world's first commercial carbon removal plant.

Phase C Session C4

Andrea 'Andy' Blair
Upflow Ltd.
Geothermal Fuels Prosperity: How Geothermal Direct Use Projects Enable Regional Economic Growth

Andy has been involved in the business of geothermal science for over ten years, coordinating sub-surface geoscience contracts worldwide. As Director of Upflow (NZ), Andy continues to match geothermal specialists with client's needs to deliver successful geothermal development outcomes. Her professional interests lie in utilizing geothermal energy to drive economic growth, and presents on the socio-economic aspects of geothermal development. In 2017, Andy was awarded the role of Geothermal Business Development Lead for New Zealand, and is charged with driving and supporting commercial investment in geothermal industrial direct use projects. Andy holds the following positions; Director, International Geothermal Association; Global Chair, Women in Geothermal (WING); Governance Board Member and Chair of Energy, Bay of Connections (Regional Economic Development Agency). Andy was previously the Chair of Ringa Matau Ltd, the commercial arm of Tauhara North Number 2 Trust, in New Zealand.

Souheil Saadi
Haldor Topsoe A/S
CO2 Scrubbing

Souheil Saadi is Business Development Manager at Haldor Topsoe A/S where he works with gas conditioning technologies, including sulfur recovery technologies, sulfur free CO2 production, and catalytic filtration of flue gases. Souheil has been with Topsoe for almost 4 years. He holds a PhD from TU of Denmark and Haldor Topsoe and has published 8 papers and 3 patent applications. He is an outdoor enthusiast and enjoys outdoor activities with his family.

Davíð Tómas
Codland
Collagen Production

Davíð Tómas has been the manager of Research and Development at Codland since 2014. Since joining the company he has been looking into new and innovative ways of producing collagen from cod skin and finding ways to upgrade other underutilized by-products from the fishing industry. He holds a master's degree in Food Science from the Norwegian University of Life Sciences. Previously, he studied Fisheries and Marine science in Iceland and Norway and has worked for the Icelandic Marine Research Institute.

Héctor Aviña Jiménez
iiDEA Group of the Institute of Engineering, UNAM
Opportunities to Develop Low-enthalpy Geothermal Projects in Mexico

Dr. Aviña graduated as a Mechanical Engineer in 2007 and obtained his master's degree in 2010. He holds a PhD in engineering from Universidad Nacional Autónoma de Mexico (UNAM), where his research topic was on geothermal energy and the desalination of seawater in Mexico. In 2012, Dr. Aviña joined the Faculty of Engineering as a professor for undergraduate and graduate courses. Currently he is a researcher at the UNAM Institute of Engineering. He has directed several studies related to the application of alternative energies, mainly with low enthalpy geothermal resources, and has presented on technological developments in this field at several conferences. He was a geothermal exploration manager at ENAL in 2013. At this time, Dr. Aviña is a participant at the Mexican Center of Innovation in Geothermal Energy (CeMIE-Geo), leading a project on the linkage of companies and universities to develop Mexican businesses which make use of geothermal energy.

Conference Dinner

Wednesday April 25, 19:30-23:30. Price ISK 10.900

Hilton Reykjavík Nordica

The dinner is a combination of a social and networking event with drinks hosted at one of the best Hotels in Reykjavik, Hilton Hotel. To attend the conference dinner delegates must register especially during the registration process or contact the conference secretary to be registered. This is done to minimize waste and lower prices of tickets for those who chose to use their time for other matters. However, we recommend that everyone join this event. It is a great icebreaker and offers an agenda packed with music, local comedian, few speeches and great food.

The program for the conference dinner at Hilton Reykjavík Nordica is as follows:

19:30 Cocktail reception at Hilton hotel with live music.
20:00 Honorary welcome address - Eng. Johnson P. Ole Nchoe is the Managing Director & CEO of the Geothermal Development Company (GDC).
20:20 Dinner and entertainment.
21:30 Networking and socializing.
23:30 House closes.

Registration at front desk: thorunn@atconferences.is

Excursions

Friday April 27

Theistareykir

Friday April 27 – Sold out

A New State of the Art Power Plant in the Northeast of Iceland

The field trip to Theistareykir Geothermal Power Station is a unique one-day trip to explore how Landsvirkjun harnesses geothermal power. Participants will fly to Akureyri in the Northeast of Iceland and then travel onwards to Theistareykir by coach, witnessing the extraordinary landscape of Lake Myvatn on their way. Once at Theistareykir, they will be guided through Iceland's newest and most sophisticated geothermal power plant by our expert guides who all have extensive experience in geothermal exploration and utilization, and learn about the fascinating history of geothermal power and its utilization in the Northeast of Iceland.

Into The Glacier Langjökull Ice Caves

Friday April 27, 10:00 -17:00. – Sold out

Into The Glacier, Europe's largest man-made ice tunnel and caves, opened on June 1 2015. Set high up on the second largest ice cap in Iceland, Langjökull, the ice caves & tunnels stretch 200 meters into solid glacial ice and lie 30 meters below the surface. Into The Glacier will offer visitors a once in a lifetime experience, where they get to explore the mighty Langjökull from within. Visitors are invited to embark on a weather dependent adventure into the great wilderness of Iceland. Visitors will travel up the glacier in massive purpose-built 8-wheel drive super trucks, until they reach the ice caves and tunnel.

Golden Circle – Gullfoss and Geysir

Friday April 27, 09:00 -17:00. Price: ISK 16.200

The waterfall Gullfoss and the Geysir geothermal field need little introduction: this trip includes some of Iceland's most stunning sights. You will see the geyser Strokkur shoot a column of water up to 30 metres (98 ft.) into the air every 4-8 minutes, a thrilling experience that just never seems to get old. We also visit the magnificent Gullfoss (Golden Falls) waterfall, located where the river Hvítá tumbles and plunges into a crevice some 32 m (105 ft.) deep.

Registration at front desk: thorunn@atconferences.is

Field Trips

Wednesday April 25, 13:30-18:00. Bus departure from Harpa Conference Centre at 13:30. Registrations are required. Further information at the registration desk: thorunn@atconferences.is

Hellisheidi Geothermal Power Plant

Hellisheidi Geothermal Power Plant

ON Power's Hellisheidi Geothermal Power Plant is located in the Hengill volcanic area in the southwest of Iceland. It is one of the country's largest geothermal areas and it's common to feel seismic activity in the area.

The tour starts with a ride up a volcano where the tectonic plate boundaries of Europe and America are obvious. We will also stop at a bore hole and learn about the wonders of our exceptional geothermal energy.

The Hellisheidi Power Plant is one of the world's largest geothermal plants and once there, we will see how the volcano's energy is transformed into electricity and hot water for district heating.

A Geothermal Resource Park is under development at Hellisheidi. Already silica-based health products are being produced and cutting-edge science and skills are being utilized to mineralize CO2 in the basaltic bedrock underneath the plant. More recent development involves algae cultivation.

Schedule – Wednesday, April 25

13:30 Departure from Harpa Conference and Music Hall.
14:00 Drive through Hengill geothermal area and visit to bore hole.
15:00 Arrival at Hellisheidi Power Plant exhibition area (split up into two groups).
16:00 Light refreshments and Geosilica introductions.
17:00 Departure from Hellisheidi Power Plant to Harpa.

Further information at the registration desk: thorunn@conferences.is

Reykjavik and Hveragerdi: Hot Springs Capital of the World

Reykjavík

In Reykjavik, geothermal power is all around you. Veitur Utilities, Reykjavik Energy's subsidiary, operates the world's largest geothermal district heating system in the capital area. In 2016, it delivered over 80 million cubic meters of hot water from low and high temperature areas to its customers. About 10% of the hot water consumed in Reykjavik is actually produced within the capital area, but the system is not particularly visible. Many of the boreholes are even located next to some of Reykjavik's busiest streets. The Bolholt borehole and pumping station is one of them.

Hveragerði

Hveragerði is located 45 kilometers east of Reykjavik and has around 2,300 inhabitants. Veitur Utilities operate a district heating system in the town which was built on top of a hot geothermal field. Pillars of steam from the numerous hot springs in the town, may be seen rising out of the ground and the town has been called the hot spring capital of Iceland. The existence of hot springs is what originally caused people to settle in Hveragerdi.

Schedule – Wednesday, April 25

13:30 Departure from Harpa Conference and Music Hall.
13:40 Short introduction to Reykjavik District Heating System.
14:40 Arrival in Hveragerði – greeted by the locals at the Geothermal Park, guided tour, geothermal egg boiling and bread tasting.
15:30 Agricultural University of Iceland – guided tour and visit to greenhouses
or
15:30 Hveragerði Public Swimming Pool – a dip into a swimming pool heated with geothermal water (please bring your swimsuit and a towel).
16:45 The NLFÍ Health and Rehabilitation Clinic – short introduction.
17:25 Departure from Hveragerði back to Harpa.

Geothermal Park with Geothermal Bread
There are not many towns in the world with hot springs literally in people's back gardens. The Geothermal Park is located centrally and there are several very active hot springs which can be seen, that throw colourful mud and clear water into the air. The locals bake their famous black bread using the hot ground in the park as an oven and eggs can be boiled in the hot springs, to enjoy with the bread later. The swimming pool, which for years was the largest pool in Iceland, can be viewed from the street.

Agricultural University of Iceland or Hvergerdi Public Swimming Pool
Participants can choose between a visit to the Agricultural University of Iceland or a dip in Hveragerdi's public swimming pool. The geothermal surroundings in Hveragerdi provide an endless supply of heat and energy. Some of which is used in the greenhouses at the Agricultural University of Iceland– where you can find anything from the Icelandic birch to tropical banana trees. The geothermal water is also utilized in Hveragerdi´s open-air swimming pool in Laugaskard. Situated in a lovely setting with hot baths, whirlpools and a natural sauna built directly over a hot spring.

The NLFI Health and Rehabilitation Clinic
The NLFI Clinic specializes in medical rehabilitation based on holistic treatment of diseases and injuries. Its professionals use geothermal mud as part of the treatment and herbal baths using local herbs and flowers. The clinic was founded in 1955 by an Icelandic medical doctor and a pioneer in naturopathic medicine.

Further information at the registration desk:
thorunn@atconferences.is

Reykjanes Peninsula – Geology and Nature Tour

Iceland Geothermal offers a trip through Reykjanes' geothermal areas. The focus will be on experiencing the peninsula and the unique landscape, geology and history of the area. Here below are the main sites that will be visited on this tour.

Seltún
A very important high temperature geothermal area in Iceland that easily competes with the geyser region, a walk through the land of the geothermal gods.

Grindavik
Grindavik is a fishing town on the south coast of the Reykjanes peninsula. It has one of the most active harbours in Iceland and most of its inhabitants work in the fishing industry. The Blue Lagoon, Grindavik's premiere attraction, is located 3 miles (4.8 km) from the town centre.

Brimketill
A magical pool carved naturally by marine erosion and supposedly was frequently visited by a giantess. The largest mud geyser in Iceland named after a 400-year-old poltergeist named Gunna that was trapped in the geyser by a priest, truly a magnificent geothermal site.

Reykjanesviti
The Reykjanes lighthouse is one of the oldest lighthouses in Iceland, built in 1907-1908, the light signal height is 69 meters above sea level. It is the most popular lighthouse among Icelanders, according to a survey of the Icelandic Maritime Administration.

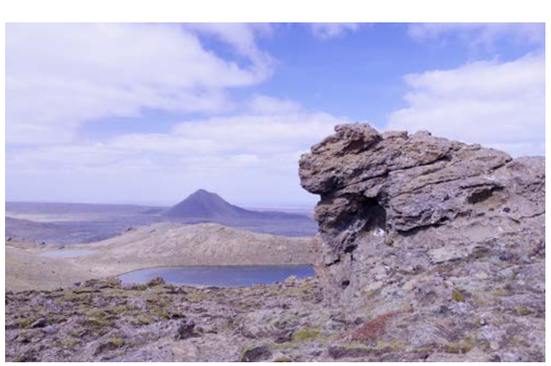
Power Plant Earth
An interactive exhibition located inside a geothermal power plant, where you can learn about the uniqueness of Iceland in its harnessing of renewable energy in a sustainable manner. When the group arrives, the guide gives a talk about the plant itself and the Resource Park in the Reykjanes peninsula.

Bridge Beween Continents
According to the continental drift theory, you can take a walk between Europe and North America, at least geologically speaking.

Schedule – Wednesday, April 25

13:30 Departure from Harpa Conference and Music Hall.
14:30 Visit to Seltún Geothermal Area.
15:30 Drive though Grindavik Town.
15:50 Reykjanesviti (20 min).
16:10 Reykjanes Power Plant.
17:00 Bridge between continents.
18:00 Arrival back at Harpa Conference and Music Hall.

Further information at the registration desk:
thorunn@atconferences.is



SILVER SPONSORS

EFLA

EFLA is a general engineering and consulting company based in Iceland with activities around the globe. EFLA's strength is based on highly qualified and experienced professionals from a wide variety of fields. Affiliate companies are based in Norway, Sweden, France, Poland & Germany. With four-decades-experience in the Energy Sector, EFLA has highly specialized skills in the design, management and implementation of diverse engineering power & utility projects. EFLA is therefore a leading provider of one-stop services in the production and distribution of electricity and other utilities. EFLA is one of the few engineering consulting firms with decades of experience in the geothermal industry. With an emphasis on the exploration of geothermal resources EFLA is experienced in feasibility studies & cost estimation for geothermal power plants, as well as direct use applications.

Íslandsbanki

A leader in financial services in Iceland, Íslandsbanki is a universal bank with total assets of ISK 1,036bn and a 25% - 50% market share across all domestic business segments. Building on over 140 years of servicing key industries in Iceland, Íslandsbanki has developed specific expertise in tourism and the seafood, energy industries. With a dedicated team of 900 employees and a vision of being #1 for service Íslandsbanki prides itself of being ranked first among banks in the Icelandic Customer Satisfaction Index for six out of seven years (2010, 2011, 2013, 2014, 2015, 2016 & 2017). The Bank was voted 'Best Bank in Iceland' by Euromoney four years in a row (2013- 2016), by the Banker (2014, 2016 & 2017) and 'Best Investment Bank in Iceland' by Euromoney (2014). Íslandsbanki received the 2017 Icelandic Customer Satisfaction Baromete awards.

Landsbankinn

Landsbankinn is the largest financial institution in Iceland and the market leader in the financial service sector. Todays dynamic and growing Icelandic economy needs a wide range of effective banking solutions and Landsbankinn strives to meet those needs. The bank offers comprehensive online services and B2B solutions, supported by the most extensive branch network in Iceland. Other services offered include capital markets trading, treasury, asset management and private banking. Landsbankinn aims to form strong, sustainable and effective business relationships with its clients, with a clear focus on the customer and delivering mutual benefit. Landsbankinn is a proud partner of the Iceland Geothermal Cluster. Its team of experts service a corporate portfolio including many leading Icelandic companies in the sector.

Reykjavik Geothermal

Reykjavik Geothermal Limited is a geothermal development company focused on the development of high enthalpy geothermal resources for utility scale power production. RG specifically identifies and targets locations where quality geothermal resources can be efficiently harnessed to meet the local demand for power and clean dependable energy. The Company's technical capability has been matched by an in-house group of expert and experienced multinational finance professionals. This team ensures the company's ability to navigate the complications of geothermal development and power plant finance. The main focus is on developing RG own projects by: Finding resource areas with first class geothermal potential and good access to markets. Secure licenses and rights for the resource area. Negotiate PPA´s. Negotiate with government and/or landowners on taxes, access etc. Perform surface exploration and EISA for the project, land compensation, fginding co-investors, lenders and tendering for drilling and EPC contractors.

SILVER SPONSORS

Arctic Green Energy

Arctic Green Energy is a leading developer and operator of profitable green energy projects. We have our roots in geothermal energy development and are currently growing into other renewable energy sectors. We build up companies within our target markets in cooperation with local partners.

The largest company in our portfolio is Sinopec Green Energy (www.sinopecge.com), a JV with China's Sinopec that was established in 2006. Sinopec Green Energy has become the world's largest geothermal district heating company, having built up 328 heat centrals across 40 cities/counties in China and drilled over 500 wells. Today the company is generating 3.65 GWth and 15 MWe.

VHE

VHE of Iceland Is headquartered in greater Reykjavík, close to international air- and seaports. Founded in 1971, VHE is today a leading family owned company in the geothermal industry in Iceland focused on inspection, service and repair of wellheads and rotors. With its engineering capabilities, the company has provided tailor made solutions to it's customers such as improved wellheads and retrievable, inflatable packer. The inflatable packer is rig-less mobile, cost effective and a safe alternative to plug and contain geothermal wells while wellhead and valve changes and maintenances are performed. With customers in more than 30 countries the company provides engineering services and manufacturing of equipment and systems for the Geothermal sector as well as many other large scale industries.

Turboden

Turboden clean energy ahead Turboden is an Italian firm and a global leader in the design, manufacture and maintenance of Organic Rankine Cycle (ORC) systems, highly suitable for distributed generation, that generate electric and thermal power exploiting multiple sources, such as renewables (biomass, geothermal energy, solar energy), traditional fuels and waste heat from industrial processes, waste incinerators, engines or gas turbines.

STRATEGIC PARTNERS

United Nations University

The Geothermal Training Programme of the United Nations University (UNU-GTP) is a postgraduate training programme, which has operated in Iceland since 1979, aiming at assisting developing countries in capacity building within geothermal exploration and development. It is a cooperation project between the United Nations University, the Government of Iceland and Orkustofnun (the National Energy Authority of Iceland) which is its host organization.
The activities include:

- annual 6-month specialised training courses in Iceland for professionals in geothermal work, through UNU Fellowships, with weight on research projects;
- supporting former UNU Fellows to progress further in geothermal through MSc and PhD studies in Iceland;
- annual Short Courses Series in support of the U.N. Sustainable Development Goals in two key geothermal regions: East Africa, and Latin America (+C.I.)
- offering services of customer-designed sponsored courses in line with the needs of the customer.
- active participation in running the 5-month Geothermal Diploma course in El Salvador.

Priority is given to nations where geothermal development is under way in order to maximize technology transfer.

Innovation Center Iceland

Innovation Center Iceland encourages innovation and promotes the advancement of new ideas in Icelandic economy by providing active participation and support to entrepreneurs and businesses. Innovation is a prerequisite for diversity in the Icelandic economy and the basis of a strong competitive position of the economy. Innovation Center Iceland belongs to the Ministry of Industry and Innovation and operates according to the Act on Government Support for Technology, Research, Innovation and Industry (no. 75/2007).
The interplay of technological consulting and business support is the greatest strength of Innovation Center Iceland. A group of specialists in different fields encourage innovation and support the advance of new ideas through research, development projects, business development and professional advice and consulting.
The Director General of Innovation Center Iceland is Thorsteinn I. Sigfusson PhD, Professor and Laureate of the Global Energy International Prize 2007.

Iceland School of Energy

Iceland School of Energy harnesses the expertise gained from understanding and utilizing the geothermal energy, hydropower and wind energy that powers the Icelandic community. The mission is to offer a high quality learning experience. Offering opportunities for research, design and the management of systems for sustainable energy, we strive to produce experts in the field for the global community. Iceland School of Energy is part of and accredited by the School of Science and Engineering at Reykjavik University in Iceland.

EAGE

EAGE is a professional association for geoscientists and engineers. It is an organization with a worldwide membership, providing a global network of commercial and academic professionals and students. With more than 19,000 members from over 100 countries, the association is truly multi-disciplinary and international in form and pursuits. EAGE operates two divisions: the Oil & Gas Geoscience Division and the Near Surface Geoscience Division.

Samorka

Samorka is a federation of the Icelandic electricity industry, district heatings, waterworks and sewage utilities in Iceland. The federation was founded in 1995 when the Federation of Icelandic Electric-works and the Federation of Icelandic District Heatings and Waterworks merged. All district heating services and electric-works in the country are members of this federation, in addition to most waterworks and sewage utilities. Samorka operates in the four fields mentioned above. Among the purposes and tasks of the federation are forwarding the mutual interests of its members, guarding their interests in mutual projects, fostering research and gathering information for its members as well as for public authorities, hosting seminars and conferences and acting on behalf of the members in mutual projects.

The International Geothermal Association (IGA)

The International Geothermal Association (IGA) is an association of associations and connects the global geothermal community. Our members range from affiliated national associations to industry representatives and it is our vision to push geothermal energy as a key renewable technology enabler of the energy transition. The IGA mission is being the leading world authority in matters concerning the research and development of geothermal energy by setting educational standards, best practices and guidelines. IGA offers worldwide geothermal energy solutions and in-house technical support, with special focus on countries in early stages of geothermal development.

EVENT PARTNER

Irena

The International Renewable Energy Agency (IRENA) is an intergovernmental organisation that supports countries in their transition to a sustainable energy future, and serves as the principal platform for international cooperation, a centre of excellence, and a repository of policy, technology, resource and financial knowledge on renewable energy. IRENA promotes the widespread adoption and sustainable use of all forms of renewable energy, in the pursuit of sustainable development, energy access, energy security and low-carbon economic growth and prosperity.

With a mandate from countries around the world, IRENA works with governments to adopt enabling policies for renewable energy investments, provides practical tools and policy advice to accelerate renewable energy deployment, and facilitates knowledge sharing to provide clean, sustainable energy for the world's growing population.

World Bank Group

The World Bank Group has set two goals for the world to achieve by 2030:

- End extreme poverty by decreasing the percentage of people living on less than $1.90 a day to no more than 3%
- Promote shared prosperity by fostering the income growth of the bottom 40% for every country

The World Bank is a vital source of financial and technical assistance to developing countries around the world. We are not a bank in the ordinary sense but a unique partnership to reduce poverty and support development. The World Bank Group comprises five institutions managed by their member countries.

Established in 1944, the World Bank Group is headquartered in Washington, D.C. We have more than 10,000 employees in more than 120 offices worldwide.

ESMAP

ESMAP is a partnership between the World Bank Group and 18 partners to help low and middle-income countries reduce poverty and boost growth, through environmentally sustainable energy solutions. Situated within the World Bank, ESMAP influences billions in loans for development projects, leverages public and private financing, and shapes global policy. ESMAP is a multi-donor trust fund administered by the World Bank Group (WBG), anchored in the Energy & Extractives Global Practice in Washington, DC. As a long-standing partnership between the WBG and bilateral partners, since its inception in 1983, ESMAP has helped low- and middle-income countries reduce poverty and boost growth through environmentally sustainable energy solutions. ESMAP's analytical and advisory services are fully integrated within the WBG's country policy dialogue and lending programs in the energy sector.

Ministry for Foreign Affairs

Ministry of Industries and Innovation

MEDIA PARTNERS

ThinkGeoEnergy

ThinkGeoEnergy is the leading geothermal news website and network, covering the complete value chain of the geothermal power sector and industrial scale direct use sector globally. It is the key news source for all major players in the industry, as well as financial players, government organizations and related players, e.g. in the oil and gas sector. ThinkGeoEnergy also maintains Spanish and Turkish geothermal news platforms.

SciTech

Having accumulated vast experience over many years, the team at SciTech Europa Quarterly are devoted to providing the most relevant and up to date information for the use of not only the European Commission, but all government agencies and departments across the continent of Europe. Whether it is from a scientific, educational or groundbreaking news perspective, our goal is to make sure that both the public and private sectors have the ability to communicate at the same level. Our publications will give opportunity to some of the leading figures from across Europe to discuss current and future projects, policy change and problematic issues within science, technology, education, health, defense and wider governance.

In the picture from left (contract signing): Hörður Arnarson, CEO of Landsvirkjun; Viðar Helgason, Managing Director of the Icelandic Geothermal Cluster; Alexander Richter, President of IGA; Ásgeir Margeirsson, CEO of HS Orka; and Bjarni Bjarnason, CEO of Reykjavik Energy (OR).

WORLD GEOTHERMAL CONGRESS HOSTED IN REYKJAVIK, ICELAND IN APRIL 2020

On January 20, 2018, the International Geothermal Association (IGA) signed a contract with the three leading geothermal energy companies in Iceland: HS Orka, Landsvirkjun and Reykjavik Energy (OR). The agreement secures financial support for the World Geothermal Congress (WGC) in Reykjavik in 2020, which will be held in April that year in Harpa Concert Hall and Conference Centre. The Iceland Geothermal Cluster will host the Congress in 2020.

The WGC is held every five years and will now finally come to Reykjavík. Iceland has, for the past decades, been a strong example of how renewable energy can power a modern economy, and the Icelandic energy companies have played a vital role in the technological development of geothermal concerning power generation, district heating, and other direct usages.

About 3,500 delegates are expected to come to Iceland for the Congress and have unique opportunity to see firsthand in some field trips how Iceland has become a leader in geothermal utilization. Hopefully, the visit will help other countries take the next step towards implementing sustainable energy solutions based on their geothermal resources.

"On behalf of the International Geothermal Association - and I think I can speak on behalf our membership as well - we are excited to see the World Geothermal Congress 2020 to be hosted in Iceland. The country stands like no other for an extensive utilisation of geothermal energy. With the geothermal energy use for heating, power generation, bathing, food production and so much more, Iceland represents a great showcase on the opportunities presented by geothermal energy.

We thank the Icelandic geothermal sector that is hosting this most important event for the global geothermal energy sector for all its support."

Alexander Richter
President of the International Geothermal Association (IGA)

THANK YOU !

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