

# MEWSLETTER

May 2020

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Generators and booster pump to run the water supply system to the geothermal drilling site have been delivered to site and installed in the newly constructed pump house next to the intermediate water tank near Iteya (the water collection point for all the ground - water)

### SITE UPDATE

#### CIVIL WORKS AND GROUND WATER DRILLING

Road Status- Final layer of road executed except for locations awaiting finalization of culverts (independent flood assessment on-going) and water line connection points.

The Water Reservoir / Pond Fence work is completed. Road to Well Pad GB and surface excavation and leveling works for well Pad GB is completed. Sub-base, base coarse works and concrete works for the cellar will be completed next month.

Water pipeline connection finalized. Pressure testing of the pipeline on 1.5 km stretches is on-going with minimum leakage.



### WATER WELL DRILLING

Well 3- Pump test carried out continuously for 24 hours using a pump with maximum yield capacity of 5 l/s. Constant rate pumping test conducts for 25 hrs. Static Water Level = 376.3m; Dynamic Water Level = 380.91m; Pump position= 426m; Recovery= more than 98% with in 30min.

Well 4- The fishing out activities of drill bit and collar has hampered the drilling works. Now the bit and collar are fished out. Drilling has resumed at 148 m.

Laydown area, camp area and rig sites fence works are almost complete.







# TMGO IS RECOGNIZED FOR EFFORT TO PREVENT COVID-19

TMGO RECEIVED RECOGNITION CERTIFICATE FROM LOCAL GOVERNMENT FOR COVID 19 EFFORTS.

All over the world COVID-19 Pandemic is creating stress on the health care system and impacting the livelihoods of so many, to this effect TMGO directly involved in supporting the fragile health care system at the local level.

TMGO procured and delivered medical equipment worth Imillion Birr in support of the local health facilities. The equipment includes personal protective equipment (PPE) for doctors and nurses assigned to treat COVID 19 patients in four health facilities.

TMGO also assigned Public Health Expert to support the local health sector and community in disseminating and implementing the national COVID 19 management guideline.

In recognition of these efforts Hetossa Woreda Health Bureau awarded a certificate of recognition for the project.



# RECIPIENT OF TMGO SCHOLARSHIP VISITED THE PROJECT ACTIVITIES

Thirty-six local youth who were attending TMGO technical and vocational training at the SOS College visited the project drilling site.

At the event, the students were informed about the progress of the project in technical, Social, Environmental, Health and Safety aspects. They were also given induction on COVID 19 prevention strategy set out by Ethiopian government. **Continued...** 



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TMGO provided a three-year scholarship program to the local youth that focus in improving employability of the youth through marketable skill development.

The student joined SOS children Village Technical and Vocational training College since October 2019. The college provides training on electricity, metal work and Auto mechanics.

# CTF APPROVED \$10 MILLION CONCESSIONAL SENIOR LOAN TO TMGO

Clean Technology Fund (CTF) is one of the two funds within the Climate Investment Funds (CIF) providing developing countries with grants, concessional loans, risk mitigation instruments, and equity that leverage significant financing from the private sector, multilateral development banks, (MDBs) and other sources. The African Development Bank (AfDB) is serving as an implementing agency of the Climate Investment Funds (CIF) that will be drawn from the Dedicated Private Sector Program III designed to provide risk-appropriate financing for high-impact, large-scale private sector projects in clean technologies. The Trust Fund Committee of CTF approved \$ 10 million concessional senior loan to TMGO on 20 April 2020 as an initiative to support Ethiopia in the deployment of renewable energy and achievement of the National Electrification Plan 2.0 targets.



#### KENGEN REMOBILISATION

KenGen will remobilize to Ethiopia from Kenya on 17th June via a Charter Aircraft we have arranged from Ethiopian Airlines to bring their Drilling Crew of 60 Engineers, Technicians, H&S & E&S Reps & Supervisors to recommence Geothermal Drilling. All personnel will be tested for corona virus prior to travel as part of a range of measures and protocols introduced by TMGO & KENGEN to combat the spread of COVID-19 to help keep our team members, supply chain staff and local communities safe. This has been super complex to arrange safely and is a great example of support and collaboration between Ethiopian Electric Power, Ministry

of Water Irrigation & Electricity, Civil Aviation Authority, Ministry of Health, Ministry of Foreign Affairs, Ethiopian Airlines, Kenyan Embassy, TMGO and our Health Consultants Innova this side of the border and KenGen and Kenya Ministries of Energy, Health, Transport, Interior & Foreign Affairs plus Civil Aviation Authority and Ethiopian Embassy on the Kenya side.

More to follow in next month's Newsletter.

# GOVERNMENT OF ETHIOPIA APPROVES GEOTHERMAL PROCLAMATION AMENDMENT

TMGO are super pleased to announce that the Council of Ministers and House of People's Representatives of the Federal Democratic Republic of Ethiopia recently approved the passing of legislation, in the form of the Geothermal Proclamation Amendment, which is a key milestone to our proj-

ect agreements becoming Effective. A great collaborative effort from Ethiopian Electric Power, the Government of Ethiopia and TMGO and our investors. Ethiopia is open, doing business and attracting foreign direct investment. TMGO are very proud to be a part of that.





# TMGO FINANCIAL DUE DILIGENCE PROCEEDING AT PACE

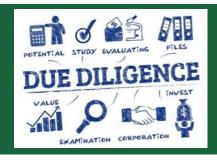
TMGO has officially kick-off the due diligence process for its financing with its mandated group of lenders and their advisors. The group is composed of AFDB (co-lead), FMO (co-lead) as well as USDFC (frm. OPIC), DEG, Proparco, EIB and EAIF. Throughout the month of May the team has delivered a series of virtual due diligence sessions (VDDS) which aimed at offering a deep dive into various key project workstreams such as Drilling Operations, EPC procurement, Legal Framework, Environmental & Social Impact Assessment, etc.

Following these VDDS, TMGO and its lenders we will start focused commercial discussions guided by the project term-sheet. The consensus at this stage is to reach initial approval before end of the year 2020 and subsequent financial close by Q2 2021. The sessions have been attended by up to 80 Lenders, Advisors with TMGO Team and Sponsors support.

#### TMGO PROCURMENT UPDATE

As on-going collaboration effort with KenGen, TMGO's Geothermal Drilling Contractor, TMGO have been undertaking direct procurements on behalf of KenGen. This is also done partly due to KenGen's lengthy statutory procurement process and duration and to achieve the required project mobilization timeline. Requests have been made by KenGen to TMGO for accelerated procurement of drilling material for drilling of the first 3 wells at Tulu Moye. These include procurement of drill bits for the drilling of first well, liquid drilling detergent, drilling chemicals and cement additives. In addition, KenGen requested for the procurement of the electro-mechanical component of the water supply system. This procurement is for the provision of Supply, Installation, Testing and Commissioning of the Electro-mechanical Component of the Water Supply System for drilling of geothermal wells in Tulu Moye.

The total cost for the requested of materials and services being procured on behalf of KenGen will stand at \$2,065,732.29 USD, which TMGO will deduct from KenGen's invoices. These procurements are already underway by various mode of transport with majority of material already being delivered to project site.





# MEET OUR TEAM SINTAYEHU CHEKOLU

COMMUNITY RELATIONS AND INVESTMENT COORDINATOR

Sintayehu Chekolu has a masters degree in Developmental Studies Specialized in Rural Livelihood and Development along with over eight years of work experience in the livelihood, community relations and engagement, project team leading and coordination positions. As the Community Relations and Investment Coordinator of TMGO, Sintayehu is responsible for coordinating the active involvement of communities in the identification, formulation and implementation of the project by developing relationships with a range of community groups, agencies and service providers, delivering information sessions, attending relevant community events, undertaking stakeholder consultations and promoting referrals and pathways into services and executing other services by working closely with the CLO and E&S manager.



#### 10 FACTS ABOUT GEOTHERMAL ENERGY

Geothermal energy is a clean, sustainable, and affordable source of alternative energy. Making an informed decision is important when switching to geothermal energy. We are here to help you in your decision-making process! Simply let us know about your needs and preferences and we will help you find your best deal! You will receive up to four **free**, **non-binding quotes from our suppliers.** 

In the meantime, here are 10 facts you should know more about:

#### 1. Continuous Power and Heat Delivered to Homes and Buildings

That's right. Geothermal energy is a renewable source which means it does not run out. This type of energy is continuously created beneath the Earth's surface from the heat generated by rocks. Water runs in a closed-loop system to the underground where the heating process takes place.

You can rest assured your home will have ongoing heating and power supply. It is simple and proven.

# 2. Home Grown in the UK

Geothermal energy has been tapped in the UK since Roman times, via the hot springs at Bath and elsewhere. Since then, the potential of geothermal energy on a commercial basis has been successfully exploited in the UK. Southampton city council is operating a geothermal power station since 1986. The power station provides heating for the city hall, superstore, swimming center, 300 flats, hotels plus the port of Southampton.

Other cities exploring geothermal energy potential are Cornwall, Newcastle, Eastgate and others more. Geothermal energy can help make the UK energy and climate secure.

### 3. Electricity Not Only Heat

Another great benefit of choosing geothermal energy **Continued...** 

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is the potential of providing geothermal electricity for your home. Geothermal power plants are being built all over Europe, thus serving as not just a renewable source, but as a backup for the intermittent renewables. This source of electricity is having major advantages over other sources of electricity due to its reliability and low impact on the climate.

Here is how geothermal energy is converted into electricity:

### 4. One of the Lowest Carbon Footprints of Energy Sources

Geothermal energy makes a minimal environmental impact. Drilling level is low compared to shale gas extraction and takes place only at the creation of the heat reservoir. On average, industrial projects involve drilling of only 2-3 wells whereas shale gas extraction requires extensive drilling.

Besides, geothermal power does not need transportation and further processing, so no heavy traffic flow and industrial production.

# 5. Energy for 25% of Europe's Population

A report published in May 2014 by the European Geothermal Energy Council emphasizes the potential of alternative energy sources in Europe. Currently, there are 4,174 districts heating geothermal systems that operate in 3,731 cities across Europe. Geothermal power generation is successfully implemented in countries like Germany, France, Netherlands, Hungary and many more.

On the map below you can see the potential of geothermal exploration in all 28 EU countries.

# 6. Flexible Renewable Energy

For heating, geothermal resources can be used in applications such as space and district heating, spa and swimming pool heating, greenhouse and soil heating, aquaculture, pond heating, agriculture, industrial heating and also snow melting. With the advances in technology, soon we will hear about new applications arising from geothermal energy.

### 7. Cooling Functions

Geothermal energy can provide both heat and cooling functions for your home thanks to the insulating properties of the earth. In summer, the geothermal system pulls heat from your house and carries it through the earth loop, where it deposits the heat into the cooler earth/aquifer. Imagine a home where temperatures are always comfortable.

#### 8. Geothermal Energy = Affordable

Fossil fuels extraction and natural gas imports are currently used to heat up households. Unfortunately, we have seen a lot of price fluctuations and increases in gas and fuel prices. By replacing these resources with geothermal energy, a lot of costs will be cut. Because the energy is generated right on the spot, it saves on processing and transportation costs. A home geothermal energy pump can cut energy bills by 30 to 40 per cent and will pay for itself.

# 9. An Industry Worth £30bn by 2020

Geothermal energy is a booming global market that is growing rapidly. Significant investments in the alternative energy field over the last few years are giving the homeowners the option of clean energy consumption. In 2011 alone, the subsidies for renewables amounted for the US \$88 billion globally.

#### 10. Geothermal Heat Pump Systems

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are warranted by the manufacturers, and their working life is estimated at 25 years for inside components and 50+ years for the ground loop. Read more about heat pump systems here and contact us to get a free estimate on getting geothermal energy today.

A geothermal heating system can be a great solution for you! Do not hesitate to contact us if you would like to get free quotes on ground source heat pumps! We will be happy to help you!

#### Source:

 $https://www.greenmatch.co.uk/blog/2014/07/10-facts-about-geothermal-energy\#: $$\sim$:text=Geothermal\%20energy\%20is\%20a\%20renewable, the \%20heat\%20generated\%20by\%20rocks.$ 



Steam rising from the Nesjavellir Geothermal Power Station in Iceland



GEOTHERMAL IMAGE; Credit: © Shutterstock



Photo by JULIEN FUMARD 05/07/2012 ICELAND, ROAD TRIP, TRAVEL DIARIES

