

MINUTES OF MEETING GIIGNL 2022 GENERAL ASSEMBLY

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Contents

Introduction	2
Item 1 – Keynote Speaker: Matthew Baldwin, Deputy Director-General Energy, European Commission	-
Item 2 – Approval of the Draft Agenda	5
Item 3 – Approval of the minutes of the 2021 Online General Assembly	5
Item 4 – Report on membership	5
Item 5 – Regional overview of energy and gas markets, with a focus on LNG	7
Item 6 – Central-Office Activities and Financial Results	17
Item 7 – Election of the 2022-2024 Executive Committee	22
Item 8 – Geopolitical Developments and Implications for LNG markets	23
Item 9 – Company reports	25
Item 10 – Decarbonising the LNG & Gas supply chain	
Item 11 – Study Group progress reports	27
Item 12 – News from Associated Organizations	
Item 13 – Next events	
Item 14 – Any Other Business	28



Introduction

President Abiteboul declared the 52nd GIIGNL General Assembly open. He thanked TotalEnergies for the welcome reception and in particular their CEO Mr. Pouyanné for hosting this General Assembly in Paris. President Abiteboul also welcomed and thanked the participants and in particular delegates representing the member companies for the first time.

Mr. Demoury added that the Central Office posted all the (available) company reports on the members' area of the GIIGNL website.

President Abiteboul provided an update on the state of the LNG industry, where he highlighted the resilience and the strength of the LNG community last two years. In 2021 LNG trade reached 372 MT, with 45 markets importing LNG and Asia driving market growth. In 2022, following the reduction of Russian pipeline supplies, the historical shift in LNG trade flows was observed with the European market taking the lead of LNG imports, supported by US LNG expansion. LNG market is characterized by intense competition, strong volatility, and efficiency, as the flows have been optimized in response to price signals. US is the biggest provider of flexibility. The president stated that today importing LNG is not an option, the pragmatic choice to lower emissions while ensuring energy security and economic and social stability.

Mr. Stéphane Michel, President Gas, Renewables and Power of TotalEnergies, gave a welcome talk. He stressed that 2022 was a challenging year as the geopolitical situation and previous low spending led to the gas crisis in Europe, which had repercussion all over the world. In the trilemma "reliability, affordability, and sustainability", last years the focus has been put to the sustainability. The crisis has recalled us the importance of the affordability. In 2022 Europe replaced 60 bcm of pipeline gas imports with LNG at 3/4. As the importers we are concerned by the high level of LNG prices, but LNG has helped to address security of supply concerns. Even if Europe is prepared for the winter 2022-2023, next winter we will still need LNG and even more, with a number of receiving terminals coming online in 2023. Europe has to remain a premium market to attract that LNG. This LNG will partially come from the US, but this will not be enough, and we will observe fuel switch and demand destruction both in Europe and in Asia. However, this demand destruction should not be structural and detrimental to the future of gas in the long term. We still need gas for the energy transition. We should support coal-to-gas switch, as there is a margin to reduce emissions: global coal use in 2021 emitted 15Bnt of CO₂ out of 33Bnt in total. Gas, being flexible energy, is the best partner for power generation in complement with renewables. In all the reference scenarios up to 2030 or 2050 gas keeps major part in the power mix. That is why we need to develop the industry and maintain its reliability, without forgetting about decarbonizing the LNG chain. The progress is being made on the liquefaction side: new sanctioned projects (Qatar, USA) propose electrification of LNG trains, native CO₂ capture and reinjection at underground storage. On the shipping and regasification side there is willingness to measure and mitigate methane emissions. The new shipping fleet has a better boil-off management and a reduced fuel consumption. We should deal with the progressive introduction of renewable green gases in the LNG chain. Mr. Michel concluded that in 2022 LNG was essential to ensure the security of supply and power stability. The industry was agile enough to face the supply shock. The ability to cooperate remains important.

Item 1 – Keynote Speaker: Matthew Baldwin, Deputy Director-General Energy, European Commission



In his keynote speech, Mr. Matthew Baldwin, Deputy Director-General of DG ENER, the energy department of the European Commission (EC), who is also responsible for the Energy Platform Task Force, explained that the Energy Platform was developed to reduce and eliminate the European dependency on Russian gas. The Platform was launched in May 2022 with the goal to explore possibilities of aggregating demand by moving toward joint purchases, to use the infrastructure effectively, to secure international gas supplies in the medium term.

He reminded that the price crisis begun before the war and was exacerbated by this. In this context the EU is addressing the 3 crises: the crisis of security of supply, the one of affordability/prices, and of sustainability/climate change. The objective of the Re-power EU plan was to diversity the energy supplies, to reduce the consumption/demand in the short term, to push ahead on storage, to speed up the energy transition. The plan proposed higher targes on renewables from 40% to 45% by 2030 and on energy efficiency, higher investments in rooftops and wind power. The role of LNG should be recognized. Thanks to the agility of the industry in meeting energy needs, Europe imported additional LNG volumes. Fortunately, Europe could afford this LNG, unlike some South Asian counties (Bangladesh, Pakistan). In 2022, Europe contracted 37 bcma of LNG more compared to the same period 2021 in the need to replace Russian pipeline gas. Europe needs to sustain this supply. According to Mr. Baldwin, in 2023 we will continue to face pressure on storage and refilling. The 15% demand reduction measure was needed, because in case of zero Russian gas supply, a tough winter or other disruption in the system, in 2023-2024 we could face a big demand gap. With several pipelines already close to their capacity, LNG will be needed to fill the gap. Regarding the infrastructure, geographical spread is not the same across the members states, due to lack of interconnexion capacity. Some terminals are contracted at capacity, but the situation remains challenging for landlocked member states in the Central Europe, Western Balkans, Moldova, Ukraine. A few new FSRU (Eemshaven, Brunsbüttel, Wilhelmshaven, Inkoo, Piombino), starting operations in 2022 - spring 2023, enlarge the market for LNG. Europe will be depending on LNG industry to ensure its security of supply.

Mr. Baldwin stressed that the EU issued specific requirements for storage levels – to fill at 80% by the end of 2022 and at 90% in 2023. In 2022 this goal was exceeded – the storage was full at more than 90%. Given the possibility of having low storage levels in spring, the 15% demand reduction currently voluntary might become mandatory if necessary.

Mr. Baldwin informed that on October 18th the EU issued a legal proposal for a new package which included joint purchase mechanism, actions to dampen gas prices and actions to improve the solidarity between member states in relation to gas.

For the demand aggregation exercise the member states are required to bring volumes corresponding to 15% of their storage filling obligations (i.e., 13.5 bcm of gas) in order to reduce the rush of filling storage and avoid high prices as we saw in August 2022. Bringing more volumes will be voluntary. A service provider will be established for collecting and matching supply and demand volumes (to fill storage), who will publish tenders to inform the world of the aggregated demand and encourage suppliers to submit bids for these volumes and ensure the supply-demand match. Only volumes will be asked from companies, not prices. Following the demand aggregation and the offers from suppliers, the companies that submitted demand volumes would be able to contract these volumes individually or jointly. A possibility of setting up a gas purchasing consortium is provided to allow companies coordinate on volumes, price, delivery points and time. A steering



board will be established among member states to oversee the process, as well as industry advisory group on corporate side. More volumes will be collected, more FIDs will be triggered. The conclusion on the agreement from the member states is expected by February 24th, 2023. If agreed, the mechanism will bring a better transparency on joint purchases, reduce costs compared to separate bidding by different buyers.

As for dampening of gas prices, firstly, the EC proposes to develop a complementary benchmark for LNG in order to provide more stable and objective pricing for LNG, compared to TTF, which is designed to pipeline gas. The proposed LNG specific benchmark will be designed and published by ACER by March 31st, 2023. Secondly, a market correction mechanism (i.e. mechanism to limit gas prices) would be established in order to reduce the volatility and level of TTF benchmark. Thirdly, a measure to address the volatility of intraday prices will be proposed.

Regarding the solidarity among member states in the event of a severe winter, the proposal mentions setting the default rules in case the neighboring counties do not have bilateral solidarity agreements between countries as well as a mechanism of allocation of gas between member states in case of regional or Union emergency.

Mr. Baldwin highlighted that the cooperation of the EU with international partners remains crucial. The activities proposed take place in the context of the EU-US Energy Security task force, which was helpful in getting European and US companies together to help increase LNG flows to Europe in line with the joint declaration by the presidents. The EC will work to continue to secure additional supplies from the US in 2023 and beyond. Another example of international cooperation is the signature the trilateral MoU between Israel, Egypt and EU on cooperation related to trade, transport and export of natural gas. Other MoUs were signed with pipeline suppliers on the presidents' level with Azerbaijan and Norway, talks are ongoing with Algeria. Further coordination with other importers would be beneficial to stabilize the global market. The EC has established important relationships with Japan, talks on cooperation are in progress.

Mr. Baldwin reminded that LNG remains important for the energy transition and there is no problem to sign long term contracts. However, the EC issued a legislative proposal to regulate methane emissions in the energy sector, which includes compulsory measurement, reporting and verification for energy related methane emissions, obligation to improve leak detection and repair of leaks in fossil gas infrastructure.

Mr. Baldwin concluded that all the measures proposed by the EC will allow for more joint actions and enable member states to act as one. Europe will need gas from diversified sources and will remain a premium gas market. The EC and the industry players are aligned in the goal to reduce their carbon footprint and progress towards the 2050 climate neutrality objective.

President Abiteboul thanked Mr. Baldwin and informed that GIIGNL established working groups and developed the Framework to monitor carbon footprint of LNG cargoes. The president asked if the current political environment was favorable to finance huge investments required to replace 150 bcm of Russian pipeline gas with LNG.

Mr. Baldwin replied that LNG was pivotal in replacing Russian gas, but Europe would increase imports of pipeline gas from Norway, Algeria and Azerbaijan. He admitted that investments in the infrastructure are needed, but the demand reduction measures would help to avoid excessive investments. Politicians understand the complexity of situation and necessity of investments.



Mr. Walker from Cheniere Energy asked if in the joint purchasing mechanism LNG purchases would be separate or joint with gas purchases. He also asked about the ultimate counterparty in joint purchasing deals.

Mr. Baldwin replied that there is no distinction between gas and LNG, as there are requirements of gas volumes, the gas might come from different sources. The proposal does not require a central buyer, but if the industry would like to have a buying consortium, the colleagues in DG Competition of the EC would help to shape the mechanism so that the solution works for both sides, adjustment will be possible depending on how the process would be going.

Item 2 - Approval of the Draft Agenda

President Abiteboul reminded that the draft agenda had been sent to GIIGNL members on June 22, 2022. An updated agenda had been recently sent and posted on the GIIGNL website.

Mr. Abiteboul reviewed the different items on the agenda and asked if there were any comments.

The meeting agenda was approved.

President Abiteboul reminded the participants that the members of the association strictly adhere to the Anti-Trust / Competition Law Guidelines posted on the GIIGNL website.

Item 3 – Approval of the minutes of the 2021 Online General Assembly

President Abiteboul mentioned that the draft minutes of the 51st General Assembly held online on November 15, 2021, had been made available to all members on the GIIGNL website.

Mr. Demoury informed that no comments had been received on the minutes.

The minutes were approved.

Item 4 – Report on membership

Mr. Demoury informed that currently GIIGNL was composed of 84 members, of which:

- 68 Full Members,
- 16 Associate Members
- Officially headquartered in 27 markets (41 members in Asia, 32 in Europe and 11 in America)

Mr. Demoury mentioned that during the last Executive Committee held on April 11, 2022 a specific point had been raised regarding the membership of two entities related to the Russian Federation, Gazprom Marketing & Trading Ltd., headquartered in the United Kingdom, and Novatek Gas & Power Asia, headquartered in Singapore, both associated members.

Mr. Demoury stressed that as a private association of companies focusing on international cooperation, GIIGNL had always strived to stay away from political considerations. In addition, article 6 of the GIIGNL bylaws does not provide for suspension of members, only exclusion.

Mr. Demoury informed that in this context, the GIIGNL Executive Committee did not make any decision regarding these two members.



Mr. Demoury noted that in August, Gazprom Marketing & Trading had changed the name to SEFE Marketing and Trading (Securing Energy for Europe).

Mr. Demoury informed that since the last General Assembly, several changes had been brought to the attention of the Central-Office among the official representatives of member companies. The list of changes was posted on the website.

Regarding new members, Mr. Demoury mentioned that since the 2021 General Assembly, one new application for Associate Membership had been received by the Central-Office, from SK Gas, based in South Korea.

Mr. Demoury reminded that the application had been uploaded on the GIIGNL website and on USBs distributed to the attendees. The application had been recommended by the Executive Committee for approval by the General Assembly.

Mr. Demoury explained that SK Gas Co. Ltd. was a leading company in the global LPG market and a newcomer to the LNG industry. The company is currently constructing a new import terminal in Ulsan, South Korea, which should be commissioned in 2024. It has also contracted LNG volumes on a LT basis through its trading entities SK Gas International and SK Gas Trading.

The General Assembly approved SK Gas as a new GIIGNL Associate Member.

Mr. Byung Suk Yoon, CEO of SK Gas, thanked GIIGNL for being accepted as a member of GIIGNL and introduced the activities of the company and its motivations to join GIIGNL. Mr. Yoon highlighted that SK Gas was expanding its business area to LNG, power, and green gases, so to give optionality to its customers. He informed that the company's LNG business would start form 2024 with the new terminal in operation, which is complete at 53.3% as of November 2022. The company expects up to 8 MTPA of new LNG demand in Ulsan until 2030.

Mr. Demoury explained that with the approval of SK Gas, the number of members increased from 84 to 85. The number of Full Members remains at 68. The number of Associate Members increased from 16 to 17.

Mr. Demoury mentioned that the Central-Office had received expressions of interest from Chevron, Exxon Mobil and Vitol. Chevron and Vitol sent formal applications for Full Membership. The information provided to the Central Office was insufficient to determine if they qualify for Full Membership. The Central Office would ask for more information, and if they qualify, ask them to reapply under the Associate Member status.

Mr. Demoury added that the Central Office had received a request for membership upgrade, from MET International. The request had been endorsed by the Executive Committee.

MET International AG has been approved as a Full Member.

Mr. Demoury reminded that the members were invited to encourage newcomers to join the association and to contact the Central-Office should they have any questions on the requirements to become a member.



Item 5 – Regional overview of energy and gas markets, with a focus on LNG

EUROPE (Mr. Thomas Maurisse – Senior VP LNG, TotalEnergies)

Mr. Thomas Maurisse, Senior Vice President LNG of TotalEnergies, gave an overview of the European gas and LNG market. He explained that in 2022 the prices in Europe and Asia have been extremely high with average YTD above 30 \$/MMbtu with 2 peaks, in March, when the geopolitical crisis started, and in the summer, when the prices got above 90 \$/MMbtu. He also highlighted the high volatility of the prices. Europe has become the premium market and attracted LNG. Mr. Maurisse pointed out the decorrelation and spatial price spreads within Europe, between different gas trading points, as well as inequal capability to attract LNG among different terminals in Europe. He stressed that in this context the sustainability, being a long-term challenge, has been put aside, as the affordability and security of supply have been the major challenges of this year.

Mr. Maurisse mentioned that as of November 2022, Russian pipeline flows to Western Europe were close to zero. With zero flows from Nord Stream 1 and Yamal Pipeline, few flows (~30 mcmd) were observed in the pipeline through Ukraine/Slovakia. 38 Bcm received from Russia YTD, compared to 102 Bcm the same period last year. He noted that this situation would last, and Europe needs to compensate the lack of gas pipeline supply from Russia.

Mr. Maurisse admitted that the situation has led to demand destruction in Europe, with 11% of decrease in YTD gas demand. The largest decreases have been observed in the Residential/Commercial and Industrial sectors, with 31-33% decrease, whereas the Gas to Power sector has been resilient. Gas consumption in this sector increased by 11% YTD as Europe has also suffered from the electricity crisis with low production in nuclear (France) and hydro (Southern Europe). He affirmed that in this situation gas remains key thanks to its flexibility and LNG became and will remain the biggest source of supply for Western Europe. With 130 bcm YTD vs 74 bcm last year LNG imports increased by more than 60%, in large part thanks to US LNG. In order to strengthen the ability to receive LNG, several new terminals are under development in Europe with forecasted start-up in 2023. With new FSRU projects in Netherlands (Eemshaven), Germany, France (Le Havre), etc., Europe should reach 270 BCM of regasification capacity by the end 2023 from 217 BCM currently. Mr. Maurisse pointed out that Greece is becoming a major LNG importer with its 7 BCM existing LNG terminal Revithoussa and a new one 5 BCM Alexandroupolis which would come in 2023. This debottlenecking of capacities in Greece, along with the Turkish pipeline on stream, will allow gas flows from Southeast Europe to the Central Europe in particularly by Bulgaria.

Mr. Maurisse noted that the European commission and the member states have been very active to come up with and implement measures to tackle the energy crisis, both on electricity and on gas. He reminded that the most important measure was the Energy Platform intended to work as an aggregator (to ease aggregation of contracts and purchases), to improve transparency on infrastructure use (to reinforce the "Use it or lose it" principle), to create and promote a new LNG spot index (to fix the disconnection between a local index where the gas is sold and the TTF) and to restore the liquidity on the market. According to Mr. Maurisse, European Union could act as a guarantor of last resort.

Mr. Maurisse concluded that a new market has emerged in Europe for LNG of about 100 MT, which will compete with Asia and create tensions on the prices for the next few years. On the supply side the new production will come on stream in the US and Qatar rather in 2026-2027 supporting those tensions.



CHINA (Ms. Yanyan Zhu – General Manager, Trading Dept., CNOOC)

In her presentation Ms. Zhu made an overview of China's gas market in Q1-Q3 2022 and gave an outlook. She mentioned that the GDP growth of China this year had slowed down to 3% YoY in Q1-Q3 2022, whereas last year the growth in Q1 was more than 15%. The YTD growth of power consumption had also slowed down to 4%. If it grew in summer and winter months, in April-May the power consumption decreased due to lockdowns. In the background of the surging prices of natural gas and LNG in the world, China has encouraged the companies to increase their coal production. The coal output growth rate was 11%. Ms. Zhu pointed out that coal replaced gas in energy consumption, which partially explained the decrease in LNG imports in China. She stressed that imports of the mainstay fuel had been exempted from tax through the end of March 2023. Because of the outbreak of COVID-19 and high gas prices, the consumption of natural gas has decreased by 0.6% YoY, despite strong growth in January-February and July (related to heating and cooling demand).

Ms. Zhu stated that YTD China's LNG imports had decreased for more than 20%. In the context of high prices companies like CNOOC had reduced LNG spot purchase, while domestic gas production had increased about 5.6% and pipeline imports had increased by more than 10%. Imported LNG price (derived from trucked LNG price) was high, even being lower than TTF or JKM, this price has gone beyond end-users' affordability, which dampened gas demand in China. In April and August, the trucked LNG price in China was about 20\$/MMbtu.

Regarding LNG outlook for China, Ms. Zhu has noted 2 trends. The first one is that the Chinese buyers tend to buy more FOB contracts instead of DES, as it was before. Since the beginning of 2021 the share (vs total contract volume) of FOB contracts increased from 6% to 55%. The recent FOB contracts are mostly with US suppliers. The second one is that Chinese NOCs and also some second tier LNG buyers are making orders to build domestic LNG carriers, so far 25 in total: CNPC (6), CNOOC (12), Sinochem (5), CSSC (2).

Ms. Zhu mentioned that China's natural gas consumption in this coming winter was expected to be flat, due to high fuel costs and a weak economy. From the supply side, the domestic gas and coal production is increasing. Pipeline imports are expected to increase, with the growth mainly coming from Russia. LNG imports, especially spot purchases, are expected to fall this winter, as a confluence of high prices, weak gas demand growth and abundant supply from other sources.

Ms. Zhu concluded that China's natural gas consumption is expected to grow in the medium term at an estimated annual rate of 6%-9%. According to the 14th Five-year Plan, the total natural gas consumption will be about 450 bcm in 2025, accounting for around 10% of primary energy consumption. Ms. Zhu stressed that if LNG prices remain high next three years, the share of LNG in the gas consumption may decline due to growing domestic production and pipeline imports.

President Abiteboul highlighted that the prices had started to skyrocket in September 2021, so it was not a consequence of the Russian-Ukrainian crisis as it started before. The Russian issue made the situation more difficult, but the prices started to increase before February 2022 because of a lack of investment in the LNG chain. President Abiteboul noted that the market mechanism had worked, as it allowed LNG to be available for Europe as China replaced LNG imports either by domestic gas production or by coal. The price signals allowed to optimize the LNG flows from one region to the other.



 JAPAN (Mr. Hitoshi Nishizawa – Executive Officer, Senior Operating Officer, Optimization Department JERA)

Mr. Nishizawa presented the energy market situation in Japan. He mentioned that total primary energy supply in 2021 increased by 3.2% over the previous year supported by the post-COVID-19 economic recovery and the severe winter of January-March 2021. In terms of energy mix, oil, which had been on the downward trend, was on a slight increase due to the resumption of the operation of some oil-fired power plants. Due to the increase in oil and renewable energy and the restarting of nuclear power plants, the natural gas demand decreased by 1.6% from 2020, but still had a 23% share.

Mr. Nishizawa reminded that in 2021 Japan imported 74.3 MT of LNG showing a slight decrease compared to the previous year. In terms of seasonality, January-March LNG imports in 2021 were at their highest level in the past four years, even exceeding the level before the Pandemic. Starting from March 2021 LNG imports declined and showed their lowest level in September/October. The seasonal profile was the same in 2022. Even if the city gas demand completely recovered after the Pandemic, LNG imports declined due to the restart of nuclear power plants since March 2021. Mr. Nishizawa mentioned that the balance of electricity supply and demand in the coming winter remains very tight. Mr. Nishizawa reminded that the main suppliers of Japan in 2021 were Australia (36%), Malaysia (14%) and Qatar (12%). In 2022 the share of Qatar declined, and the share of the US declined mainly due to the Freeport fire.

Mr. Nishizawa provided a demand outlook for Japan. The energy policy goal of a 46% reduction in GHG emissions in 2030 as a path to carbon neutrality in 2050, which is stated in the 6th Strategic Energy Plan issued in 2021, still applies. The Japanese government intends reduce its dependence on Russia and to rely more on renewables and nuclear. However, LNG is expected to maintain its share about 20% as of 2030 and will fill the gap in case of failure of renewables and nuclear to ensure the country's energy security.

Mr. Nishizawa informed that no new reactors restarted in 2022. Japan has 10 reactors in operation, 7 more are to be restarted in 2023 and 8 more are approved but have not received the government consent for the restart yet. He admits that LNG will continue to balance the energy sector even if the restarts are successful due to inability of the nuclear to cope with peak demand and as a back-up for renewables.

Mr. Nishizawa reminded the importance to decarbonize summer power generation in Japan. According to the Asia Zero Emissions Community Initiative, in place since January 2022, zero emission technologies, including hydrogen, ammonia, biomass and CCUS will be developed for thermal power generation. Japanese government will invest around 60 Bn yen to develop such technologies (e.g., new catalysts for ammonia production, green ammonia production technology, and both exclusive firing and cofiring burns for ammonia) in the context of the Fuel Ammonia Supply Chain Establishment Project. Mr. Nishizawa mentioned that in May 2022, Jera announced new corporate vision and environment targets for 2035 on the way toward zero emissions in Japan in 2050, showing the roadmap for its operation. The roadmap seeks to introduce zero emissions summer power by utilizing hydrogen and ammonia along with promoting renewable energy. Jera has started the demonstration test of ammonia co-firing at Hekinan Thermal Power Station with a co-firing rate of 20%. The commercial start-up is expected in 2023. Commercial operations of co-firing of hydrogen are expected in mid-2030s.



Mr. Nishizawa concluded that among G7 countries Japan is less dependent on Russia than Europe in its energy security but has the lowest rate of self-sufficiency. Japanese government acts to achieve stable and sustainable energy supply by supporting upstream development, implementing emergency measures for fuel supply and strengthening the government's involvement in energy procurement (e.g., signing of a MOC in the field of LNG between METI and Petronas).

President Abiteboul asked the reason of the decline in nuclear power generation in Japan in 2022. Mr. Nishizawa answered that some nuclear power plants had not received both, government approval and consent for the restart yet and for those in operation the nuclear production was lower due to maintenance.

Mr. Olivier asked the reason for such an optimistic view on the target of renewables development in Japan considering the lack of space for solar development and difficulties to install offshore wind farms. Mr. Nishizawa answered that it might indeed be difficult to meet the target and in case of failure to meet the renewables target LNG will be used to fill the gap.

Mr. Hill asked what the measures in Japan to cope with the high energy prices are. Mr. Nishizawa answered that energy utilities adjust tariffs to integrate higher cost of energy, also the government subsidies are planned.

Mr. Demoury asked about the perception and perspectives of carbon neutral LNG (CNL). Mr. Nishizawa answered that CNL was an option to achieve carbon neutrality, but in current situation its development had slowed down. In the future Japan will come back to actions promoting CNL.

SOUTH KOREA (Mrs. Mi Jung Nam – VP LNG Procurement, KOGAS)

Mrs. Nam presented Korean gas market developments, long-term policy, and forecasts. She reminded that Korea relies on importing LNG for most of its natural gas consumption with LNG coming from all around the world. KOGAS, a government own company, is the main LNG importer and major player in the gas market in South Korea. As a wholesaler, KOGAS supplies to 33 local city gas companies and 26 power companies. City gas companies distribute the natural gas to over 20 million end users for residential, commercial and industrial use. Currently South Korea has 7 energy terminals in operation: 5 operated by KOGAS and 2 by private companies SK, GS Caltex and POSCO.

Mrs. Nam remined that natural gas consumption in South Korea had been growing by 10.3% annually from 1987 to 2021. In 2021, total consumption reached its record of 45 MT, which comprised 19 MT for city gas and 26 MT for power generation. This rebound of demand was caused by energy transition trend in Korea and economic recovery after COVID-19. Main LNG suppliers are Qatar, Australia, and the United States. In 2021 KOGAS imported 37 MT of LNG out of 45 MT in total.

Mrs. Nam informed that according to the Korean government energy policy, which was released in July 2022, South Korea targets the nuclear energy to reach 32% by 2030, renewables to reach 21.5%, and plans to reduce coal use for power generation. Korean Government Energy Plan consists of Energy Master Plan (4th plan to be announced in 2024), Basic Plan for Long-term Electricity Supply and Demand (10th plan to be announced at the end of 2022) and Long-term Natural gas Supply and Demand Plan (15th plan will be announced early 2023). According to the last plan, Korea's annual demand for natural gas is expected to reach 47.9 MT in 2034.

Mrs. Nam concluded that in the current context of energy crisis and price volatility, KOGAS aims to cooperate with the government, with private gas companies and with global buyers and sellers.



President Abiteboul asked about the length of the bridge in the statement that natural gas was the bridge fuel. Mrs. Nam answered that as there is always a gap between the plan and reality, LNG will take longer to take active role in the energy transition.

Mr. Ledesma asked about alternatives for South Korea in the context of high gas prices for the winter 2023/2024. Mrs. Nam answered that South Korea is seeking for alternatives as the nuclear or diversification of procurement contracts conditions (terms, price mechanisms).

■ TAIWAN (Mr. Huang Chang Lee – Vice President, CPC)

Mr. Lee presented the update on the energy supply and the natural gas market in Taiwan. He mentioned that Taiwan's energy supply had shown a growth of 35% in the last 20 years, while total energy consumption had grown by 36%. In 2021 around 97% of the Taiwan's energy was imported. The total energy import increased by around 4%, in particular, natural gas import increased by 9.6%. Taiwan's energy mix in 2021 was 44% oil, 30% coal, 17% gas, 6.6% nuclear and 2% renewables. In terms of energy consumption, 52% came from petroleum products, 30% from electricity, 8% from coal and coal products, 6% from natural gas, and 3.6% from renewables. The power mix accounted for 44% of coal, 37% of gas, and almost 10% of nuclear. Mr. Lee reminded that in 2021, 2021, Taiwan imported around 19.5 MT of LNG, which represented 99% of Taiwan's gas supply. LNG was coming mostly from Australia and Qatar.

Mr. Lee informed that in line with the goal of diversification of LNG sources, CPC had signed multiple LNG contracts around the world, including Middle East, Southeast Asia, Australia, North America, Africa and Europe, signing more medium- and short-term agreements. He highlighted that the main driver for the increasing LNG demand in Taiwan was the nuclear free by 2025 and reduction of coal use policy. LNG plays key role in power generation. In 2021, about 83.6% of the gas consumption was used for the power generation.

Mr. Lee stated that the government's power generation mix target in 2025 was 50% gas, 30% coal and 20% renewable sources. The total LNG import capacity is targeted to reach around 25 MTPA by 2025. Mr. Lee reminded that CPC owns and maintains two LNG receiving terminals, 10.5 MTPA Yung-An and 6 MTPA Taichung and plans a new GuanTang terminal. Two expansion programs are ongoing: to add 6 tanks (180k m3 /each) by 2028 at Taichung which would reach 13 MTPA of capacity and 3 Tanks (200k m3 /each) by 2027 at Yung-An. The 6 MTPA GuanTang terminal is planned to have 2 tanks (160k m3 /each) and be completed by 2031. By that year the total regasification capacity is expected to reach 30 MTPA.

Mr. Lee concluded that the government's policy had been a driving force to increase LNG demand in Taiwan. LNG infrastructure is the key to achieve this goal. CPC will continue to work together with other LNG importers to enhance the flexibility and security of supply.

INDIA (Mr. Vinod Kumar Mishra – Director of Finance, Petronet LNG)

Mr. Mishra presented recent market developments in India. He noted that total share of the natural gas in the energy basket in India was 6.3%, while it was 24% globally. The shares of other energy sources are as follows: coal 57%, oil 26%, renewables 5%, hydro 4% and nuclear is 1%. This means that there is ample scope for growth of natural gas in Indian energy basket and it will grow further provided the prices are reasonable and affordable. India is the 14th largest gas consumer with 47.25



MT of gas consumed in 2021 and 4th largest importer of LNG with 24.2 MT imported in 2021. LNG imports declined in 2021 due to high prices. High and volatile gas prices (the prices ranged from 1.84\$/mmbtu in 2020 to 84 \$/mmbtu in 2021) have impacted the gas consumption in India. The aim of the Indian government is to raise the share of natural gas from 6.3% to 15% by 2030. This could bring gas consumption to 153 MTPA. Mr. Mishra reminded that currently the share of LNG in the gas consumption was 50% and that Indian market was very price sensitive. He stated that subject to affordable LNG price, the share of LNG could increase up to 70% by 2030.

Mr. Mishra reminded that the share of short term and spot market purchases was around 31% in 2021. Gas and LNG was used primarily in fertilizer sector, city gas distribution network, power sector, refining and petrochemical sectors. The highest growth is observed in city gas distribution. Dahej terminal handles almost 2/3 of LNG imported to India which represents 40% of the total share of natural gas consumption.

Mr. Mishra named the main LNG suppliers of India: Qatar (42%), USA (16%) and UAE (13%). Short term and spot LNG is mostly imported from the USA (30%). He stated that India now relies more on LT contracts due to the increased price volatility.

Talking about the gas infrastructure in India, Mr. Mishra reminded that India has 6 terminals in operation of a total capacity 42.7 MTPA. 17.5 MTPA Dahej and 5 MTPA Kochi are operated by PLL. After expansion Dahej terminal will have 22.5 MTPA of capacity. PLL plans to build one more terminal on the East coast of India. Other terminals under construction are Jaigarh (6 MTPA), Dhamra (5 MTPA), Jafrabad (5 MTPA), Chhara (5 MTPA). The total capacity could increase in the future to 77 MTPA. According to Mr. Mishra, in next 2-3 years the total pipeline network will be in the range of more than 35 000 km.

Mr. Mishra concluded that out of 153 MTPA of potential gas consumption by 2030, domestic gas could represent 33 MTPA, so 120 MTPA will come from LNG. The infrastructure like LNG terminals, trunk lines and CG networks are being created for this LNG. CGD, refining and petrochemical sectors and LNG for transportation are likely to drive the demand growth in India. There are already 4 LNG dispensing stations for medium and heavy commercial vehicles. LNG for transportation could add 8-9 MTPA of LNG demand. 25 MTPA of additional LNG demand could come from the power sector, but only subject to reasonable gas prices. Gas demand in refining and industrial use was also reduced this year due to switch to other fuels because of high LNG prices. Mr. Mishra hopes that it was a temporary phenomenon and India is able to reduce exposure to price volatility thanks to LT contracts. According to Mr. Mishra, in the long run gas demand in India will be satisfied with LNG.

AMERICAS (Mr. Andrew WALKER – VP Strategy, Cheniere)

Mr. Walker presented the overview and outlook for LNG in North America, complemented by a presentation on Chile from Mr. Antonio Bacigalupo, who could not attend the meeting in person.

Mr. Walker mentioned that with regards to the United States, the key points remain the same as for the previous past years. The US has an abundant natural gas resource, with growing production and generally reducing prices. Technically recoverable gas resources in the US could cover current levels of gas consumption for 100 years. The natural gas production has been increasing rapidly in the recent years reaching almost 100 Bcf /day and US consumption has been up 4 Bcf/d YOY so far in 2022, power consumption being a big driver together with a cold winter, and a hot summer, and some industrial recovery. US LNG has continued to grow – net LNG feedgas deliveries have averaged



11.9 Bcf/d. Overall, power, industrial domestic consumption together with LNG exports have overall increased by 5.5 Bcf/d on average through the year and US production has continued to grow, gas rigs being well above where they were pre-pandemic. Mr. Walker said that if we look at the balance between consumption and production, production has not been fast enough to keep up with the exports. However, the US is getting into a much better position with regards to storage as winter approaches. In the longer term, the EIA outlook for domestic foresees a growing market. Total demand is forecast to grow from 94 Bcf/d in 2021 to 116 Bcf/d in 2050, exports and industrial use being the two growing areas.

Regarding commercially recoverable resources, Mr. Walker said that IHS have increased their estimates of resources technically recoverable in their cost curves and are now up by 116 Tcf in 2022 from the 2021 estimate. They remain confident that there is a lot of gas that could be produced at economic prices. The US could remain an economic provider for many years to come since Henry Hub is forecasted to remain flat and low in the longer run. EIA expects HH to increase modestly from the mid 2020's, driven primarily by LNG exports but to remain below \$4/MMBtu to 2050.

Regarding the Biden Administration, Mr. Walker said that it has a complicated relationship with oil & natural gas since they are trying to balance the long-term climate goals with the current issues of price inflation.

Mr. Walker reminded the audience that the US has now 92 MT of export in place and 45 MT of capacity under construction which will reach 137 MT around 2026 or 2027. 2022 has been a record year for contracting LNG: 38.5 mtpa of firm SPAs signed YTD in 2022, plus 20.4 mtpa of preliminary agreements and two FIDs have been signed: Plaquemines and Corpus Christi stage 3. Multiple EPC price refreshes are expected in the coming months. The US is on its way to becoming the main export country and they are together with Qatar the ones who will make the greatest investments in the coming decades.

Regarding Chile, Andrew Walker delivered the presentation on behalf of Antonio Bacigalupo. He mentioned that Chile is committed to reaching net zero emissions by 2050 or earlier and is making fast progress in terms of the renewable generation in its mix. Renewable energies already represent 51% of the renewable generation and they are moving with the decommissioning of coal-fired generation which decreased to 27% in 2021. In terms of the market mix, transmission capacity remains the greatest challenge to get renewable generation to central Chile where the highest demand is. Ongoing regulatory review for a potential larger role for natural gas in the energy transition is underway but it is an ongoing discussion and the role of gas as a back up to renewables will need to be demonstrated in order to replace coal and diesel in particular. Chile could be a major supplier of green energy since it has plans to develop green hydrogen given its excellent renewable energy conditions, and the Government has selected five projects to receive funding, including a project at GNL Quintero which is a 10 MW hydrogen project, presumably for export.

Focusing on natural gas, total natural gas demand grew by 9.6% in energy demand -9% in power generation, however most of that growth came from a restart in pipeline imports from Argentina which led to a decrease in LNG imports.

• MIDDLE EAST, PAKISTAN AND BANGLADESH (Mr. Mehdi Chennoufi – Head of Global LNG Origination, Shell)



Mr. Chennoufi provided a summary of the situation at the Middle East. He mentioned that volatility, higher gas prices and LNG prices led to some consequences such as the resilience of the LNG industry and the functioning of the LNG market. The Middle East is a good example of the functioning of the LNG Market. In the Middle East there was a demand response and a supply response. Supply increased by 10%, Qatar managed to divert a lot of its uncommitted supply to Europe and there has been serious demand destruction in countries like Pakistan and Bangladesh with the respective consequence that they are burning a lot more oil than ever anticipated. Oil based power generation slowly started picking up and will continue to do so in the coming years. There is a lot more activity in the middle East such as Abu Dhabi looking to build a major liquefaction facility and the Kingdom of Saudi Arabia looking to becoming a major LNG player going forward.



Executive Committee Meeting

President Abiteboul informed that the attendance sheet was being circulated and that he had received apologies from several members of the Executive Committee and proxies had been received for CPC Corporation, KOGAS, Osaka Gas and Petronet.

Election of the Executive Committee

President Abiteboul reminded the composition of the current Executive Committee and showed the recommendations for the next two years' Executive Committee.

President Abiteboul informed that the Executive Committee agrees to submit the composition for approval.

Regarding the representatives of the Executive Committee, President Abiteboul noted the following changes:

- Cheniere will be represented by Mr. Andrew WALKER, Vice President Strategy
- Shell will be represented by Ms. Alice ACUNA, Senior Vice President LNG Marketing & Trading
- TotalEnergies will be represented by Mr. Jose-Ignacio SANZ-SAIZ, Vice President LNG Marketing, TotalEnergies

President Abiteboul congratulated the newcomers and thanked the leaving members of the Executive Committee.

Election of the Bureau (Vice Presidents and President)

President Abiteboul mentioned that since the last Executive Committee, he had received suggestions for the next Vice Presidents from the outgoing Vice Presidents, Mr. HILL from Shell, Mr. HIROSE from Tokyo Gas and Mr. OLIVIER from TotalEnergies.

President Abiteboul named the proposed Vice Presidents for the next term:

- Mr. Anatol FEYGIN from Cheniere for the Americas
- Mr. Takashi UCHIDA from Tokyo Gas for Asia
- Mr. Thomas MAURISSE from TotalEnergies for the European Region.

Mr. Demoury reminded that the new mandates would take effect after the General Assembly.

Mr. Demoury informed that no new indications of potential candidates for the presidency had been received at the central office.

Mr. Hirose asked the current President (Mr. Abiteboul) to serve for a next new two-year mandate.

President Abiteboul thanked Mr. Hirose for the proposal and accepted it.

Mr. Demoury informed that this suggestion would be proposed to the General Assembly.

President Abiteboul stated that the Executive Committee agreed to recommend the new Executive Committee for approval by the General Assembly.

Mr. Demoury mentioned that the Central office received the request for upgrade from MET International. They requested the status elevation. MET joined in 2018 at the General Assembly in Fukuoka, and since then, they have contracted long term capacity in Croatia and Spain. They



imported almost 2.8 BCM 28 cargoes in 2022 in aggregate, and they are represented by the CEO Mr. Vargha.

The Executive Committee agreed to submit this request to the General Assembly.

Next events

President Abiteboul mentioned that next events are:

- 2023 Executive Committee, hosted by Cheniere in Panama from May 21 to May 23,
- 2023 General Assembly, no host proposal yet,
- 2024 Executive Committee, no host proposal yet.

Mr. Walker confirmed that Cheniere would be pleased to host the Executive Committee in Panama, one of the first times for a long time in South America. He hopes that there will be a trip to the Panama Canal which everyone would join if everything would go as planned.

Regarding the 2023 General Assembly President Abiteboul mentioned 2 issues: issue of cost, and issue of organization and level of involvement. The organization can be held by a professional and there is a possibility that the Central office takes more cost for itself, but in this case, there will be an increase in membership fees. President Abiteboul highlighted the tradeoff between both issues.

Mr. Chennoufi proposed the help of Shell subject to finding the funding.

President Abiteboul qualified it as a half-invitation.



Item 6 – Central-Office Activities and Financial Results

1 - Central Office Activities

Mr. Demoury provided an update on the activities of the association. He reminded that the association conducts its activities based on 6 core values: Quality, Service, Flexibility, Collaboration, Safety and Sustainability.

Mr. Demoury presented a summary of the activities that were organized by the Central-Office in 2022, including publications and webinars organized.

Mr. Demoury informed that the GIIGNL provided networking opportunities thanks to the support of hosting companies: CSG was held in Marseille thanks to Elengy, the TSG was hosted in Lisbon by Ren Atlantico, CSG&TSG were jointly hosted in Singapore by Singapore LNG Corporation and Mitsui OSK Lines.

Mr. Demoury explained that GIIGNL

- Produces GIIGNL Annual Report The LNG Industry
- Produces the EU Quarterly Policy Watch
- Created a new section with dynamic graphs in the Knowledge Center on the GIIGNL website
- Produces LNG Advocacy materials (such as the LNG Narrative around 5 pillars, the update of the LNG Playbook)
- Publishes position papers (two declarations in March and April in agreement with the Bureau, advocating for all possible measures to facilitate LNG trade and the development of LNG infrastructure)
- Responds to EU consultations
- Maintains a regular dialogue with the Panama Canal (a formal response to the PCA on their Proposal to Modify Tolls provided in January)
- Provides support to the Commercial and Technical Study Groups in their activities and publications, notably by coordinating the meetings of the LNG advocacy Working Group

Mr. Demoury informed that GIIGNL

- Conducted online Study Group meetings and topical meetings on ways to handle the coronavirus crisis
- Held online webinars (Market Updates every semester, Webinars on the MRV Framework)
- Produces new contents based on the new realities of our industry (ex: Information Paper n°7 on FSRUs and Information Paper on Retail LNG currently being finalized)
- Continuously reviews the evolution of our industry and engage in the discussions around the future of LNG
- ➤ Performed LNG Barometer survey joint with OIES. GIIGNL and the Oxford Institute for Energy Studies have entered into a cooperation agreement. As part of this agreement, the OIES and GIIGNL will jointly carry out an annual survey of the LNG industry that is, the LNG Barometer.



Mr. David Ledesma, distinguished research fellow at OIES, provided a summary of the results of the LNG Barometer which contained 9 questions and 30 responses from GIIGNL members. He mentioned that the purpose of the survey is to get a pulse of the thought of the industry.

From the comparison of the February survey with the October survey, Mr. Ledesma highlighted some key conclusions which included the fact the respondents believe that Spot and short-term trades will fall -which links back to the question of security of supply. The survey also showed that respondents believe that there would be no change in the LNG buying strategy and that there would not be sufficient LNG in the market since there would be a greater growth of LNG. Regarding regasification capacity, Mr. Ledesma mentioned that half of the respondents changed their view from the February Survey to the October survey with regards to the need of regasification capacity. In February, 36% of the respondents mentioned that 150-200 mtpa more regasification capacity would be required by 2027, whereas in the Fall this percentage increased to 52%. Also, security of supply, affordability, price volatility and hedging were highlighted as the the most important uncertainties that the companies are facing, whereas Covid 19 and GHG abatement have fallen in terms of priorities. With regards to the opportunities for LNG demand growth over the next 5 years, the power sector and the transport sector decreased from one survey to the other, and industry increased.

Mr. Ledesma explained that the plan is to undertake a third survey in Spring 2023 and another survey next fall.

Mr. Demoury stated that GIIGNL

- Collaborates with other associations within the LNG Protocol in order to avoid overlap
- ➤ Participates in relevant industry forums (LNG2023 Steering Committee, IGU LNG Committee).
- ➤ Develops mutually beneficial links with national and international institutions and academia (MOU with OIES).

Mr. Demoury mentioned that GIIGNL

- ➤ Ensures the maintenance and development of the Safety Incident Database in collaboration with the Technical Study Group.
- Closely follows the topic of mitigation of GHG emissions (Best Practice Guidance on Methane Emissions Management and Mitigation in LNG Terminals published recently)
- Coordinated MRV&GHG Neutral Framework with ex CSG Chair Donna de Wick and a TF of 50 technical and commercial experts from the membership.

Mr. Demoury reminded that GIIGNL launched its MRV & GHG Neutral Framework in November 2021, a framework designed by the industry to guide the reporting of GHG emissions from LNG cargoes and the various claims associated with emissions reporting and offsetting. Since the publication, the Framework has been widely reported in the press and has attracted attention from the LNG community.



Mr. Demoury mentioned that since then, the Central-Office had been promoting the Framework and has held a number of dedicated sessions with LNG producers, industry bodies, other greenhouse gas reporting initiatives and LNG-related companies like EPC and class societies.

A Pilot Phase was launched in July 2022. The launch of this Pilot Phase has been approved by the Executive Committee in April. It targets several outcomes:

- Provide opportunity for players to test the Framework and share experience
- Provide technical support to companies involved in the pilot
- Secure representation from different types of operators / life cycle stages
- > Identify potential gaps/areas of the Framework and lessons learned for potential update
- (version 2) of the Framework

A Sustainability Consultant was selected by the Central-Office and validated by the Bureau to coordinate the project.

The Pilot phase includes 4 online technical workshops as well as monthly Q&A Sessions with the Consultant, with the objective to support the practical implementation of the Framework and to come up with a Key learnings report delivery in March 2023.

Mr. Demoury informed that 2 rounds of individual consultations and 2 Workshops had been held with the 6 participating companies:

- Conoco Phillips
- CPC Corporation Taiwan
- GNL Quintero
- Naturgy
- > Shell
- Tokyo Gas

Mr. Demoury informed that GIIGNL had been shortlisted by the World LNG Summit for the Energy Transition Award 2022 « For implementing initiatives to enhance sustainability and drive transparency on greenhouse gas emissions from the LNG chain, such as the MRV and GHG Neutral Framework for LNG cargoes. »

2 - Financial results

Mr. Demoury presented the 2021 Financial Report, and explained that as of end of 2021, the Profit & Loss showed a negative net result of -173 K EURO, in line with the projected amount of -180 K EURO. He explained that this loss had no significant impact on the financial health of our association given the level of reserves of more than 1.8 M Euro at the end of 2020.

Mr. Demoury informed that the 2021 consultancy fees included the funding of two studies: the study on EEXI regulation and the MRV & GHG-Neutral LNG study (80 K EURO and 220K EURO respectively) as well as the hiring of a media & PR agency to support the roll-out of the MRV & GHG Neutral LNG.

Mr. Demoury mentioned that the Covid-19 crisis had not had any significant impact on the results nor on the reserves of the association.



In EURO	2020 Actual	2021 Budget	2021 Actual
Revenues from Member Fees	1 028 218	1 008 400	998 306
Other Revenues	10 009		
Revenues	1 038 227	1 008 400	998 306
Office rental	82 395	110 000	86 600
Labor cost (charges included)	360 311	413 940	460 251
Consultancy fees		350 000	347 573
Other charges	217 823	314 150	285 715
Expenses	660 529	1 188 090	1 180 139
Operating Income	377 698	- 179 690	- 181 833
Financial Income	2 487		8 810
Net Income	380 185	- 179 690	- 173 023



Mr. Demoury presented the balance sheet at the end of 2021:

Assets (in euros)		
	Year 2021	Year 2020
Long term assets	61 956	39 559
Receivables	12 900	-
Other Receivables	14 382	4 380
Marketable securities	1 626 583	1 388 420
Cash & cash equivalents	187 717	587 537
Prepaid expenses	23 005	28 701
Total Assets	1 926 543	2 048 597

Liabilities (in euros)		
	Year 2021	Year 2020
Retained earnings	1 825 883	1 445 698
Net income	-173 023	380 185
Total net equity	1 652 860	1 825 883
Trade and other payables	131 235	86 873
Tax and employee-related liab.	142 448	123 941
Prepaid received	-	11 900
Total Liabilities	1 926 543	2 048 597

Mr. Demoury informed that total assets at the end of 2021 amounted to 1.9 Mn EURO. The association's current reserves stand at around 1.65 Million EURO, i.e. approximately 1.5 years of operational expenses.

Mr. Demoury reminded that GIIGNL being a not-for-profit association, results cannot be redistributed but should be reinvested so that they remain within an acceptable range (inferior or equal to 1.5 years of operational expenses).

The auditor's report was prepared by Ernst&Young and concluded on no reservation.

President Abiteboul informed that the 2021 audited accounts have been formally endorsed by the Executive Committee at its meeting on April 11, 2022.

The General Assembly approved the 2021 audited accounts.



Mr. Demoury presented the budget for 2022 and 2023.

Mr. Demoury explained that expenditures for 2022 have been reevaluated downwards given the absence of a physical meeting in Panama. Compared with the initial budget, the revised budget for 2022 takes into account the contribution to consultancy fees of 100 K EURO (for the MRV Pilot phase). The revised budget for 2022 shows a slightly negative operating income of -52 K EURO.

In EURO		2022 Draft Budget	2022 Last Estimate	2023 Draft Budget
Revenues from Member Fees		983 600	983 600	983 600
Other Revenues				
	Revenues	983 600	983 600	983 600
Office rental		110 000	90 805	110 000
Labor cost (charges included)		413 940	460 376	460 376
Consultancy fees			100 000	
Other charges		449 500	385 000	385 000
	Expenses	973 440	1 036 181	955 376
Operating Income		10 160	- 52 581	28 224
Financial Income				
	Net Income	10 160	- 52 581	28 224

Mr. Demoury presented the draft of 2023 budget and reminded that it does not take into account any new memberships, resignations, and any budget for exceptional studies. The draft 2023 budget takes into account a higher rental cost due to the fact that the lease is likely to increase. The estimated result for 2023 amounts to € 28 K EURO.

President Abiteboul informed that the Executive Committee did not recommend any modification of the annual membership fees. The 2023 fees remain identical, at 11,900 EURO for Full Members and 10,900 EURO for Associate Members.

Item 7 - Election of the 2022-2024 Executive Committee

Before the vote on the renewal of our Executive Committee, President Abiteboul reminded that only Full Members could vote. He also reminded that before the General Assembly and the Executive Committee have been held this morning, each Vice President had contacted each member of his region asking their opinion on which company should become part of the Executive Committee for the next 2 years. The result of this consultation had been collected and endorsed by the Executive Committee and submitted for approval by the General Assembly.



President Abiteboul informed that the consultation resulted in reconducting the existing composition of the Executive Committee.

President Abiteboul reminded the current representatives of the Executive Committee and noted the following changes:

- Cheniere will be represented by Mr. Andrew WALKER, Vice President Strategy
- Shell will be represented by Ms. Alice ACUNA, Senior Vice President LNG Marketing & Trading
- TotalEnergies will be represented by Mr. Jose-Ignacio SANZ-SAIZ, Vice President LNG Marketing, TotalEnergies

President Abiteboul welcomed the Executive Committee members.

The new Executive Committee has been appointed by the General Assembly.

President Abiteboul mentioned that since the last Executive Committee, he had received suggestions for the next Vice Presidents. The proposed Vice Presidents for the next term are:

- Mr. Anatol FEYGIN from Cheniere for the Americas
- Mr. Takashi UCHIDA from Tokyo Gas for Asia
- Mr. Thomas MAURISSE from TotalEnergies for the European Region.

The Vice Presidents have been appointed.

President Abiteboul congratulated and welcomed the new regional Vice Presidents.

Mr. Demoury reminded that the new mandates would take effect after the General Assembly.

Mr. Demoury informed that no new indications of potential candidates for the presidency had been received at the central office.

Mr. Hirose asked the current President (Mr. Abiteboul) to serve for a next new two-year mandate.

President Abiteboul thanked Mr. Hirose for the proposal and accepted it.

The President has been appointed.

President Abiteboul thanked Mr. Hirose for his involvement as a member of the Bureau and Vice-President for Asia over the last 6 years, for the Executive Committee in Tokyo in 2017 and General Assembly in Fukuoka in 2018 and for his commitment and support to the association.

President Abiteboul thanked Mr. Hill, who has been Vice President for Americas since 2014 and Mr. Olivier, who has been Vice President for Europe since 2020.

Item 8 – Geopolitical Developments and Implications for LNG markets



Mr. Marc-Antoine EYL-MAZEGGA, Director, Center for Energy and Climate at IFRI (French Institute of International Relations), gave presentation on Geopolitical Developments and Implications for LNG markets.

Mr. Eyl-Mazegga mentioned that the Russia-Ukraine conflict which started on 24 February 2022 has shifted global international relations since it has exacerbated the rivalry between East and West and notably between the US and China, but also between democracies and authoritarian states. He said that it has also put globalization at stake since countries are now looking into becoming more self-sufficient, which will bring major adjustments, notably on investments, trade, routes, dependencies, currencies and the way value chains are organized. It is expected that the US-China rivalry will become systemic and will structure the international systems for decades to come, climate being the only exception to all of these – since both the US and China understand that they will be heavily hit by climate change, and both have an interest to work together.

Mr. Eyl-Mazegga highlighted the role of Europe in this situation. He mentioned that in the past few years, there has been a shake up and wake up in Europe as to the side in which Europe will position itself on and the strategy Europe has taken towards China and the US. In this respect, Europe has gone in the direction of becoming autonomous. Russia has revitalized the west in international relations including NATO, OECD, EU, and Europe has become a major geopolitical actor.

The loss of oil, gas and coal exports from Russia is a real game changer. Russia has lost the European market, and rerouting these supplies elsewhere will be extremely costly and are in a weak position. For many countries in the world this confrontation between the east and the west will be an opportunity.

According to Mr. Eyl-Mazegga despite the hard effect of the conflict in the European region, the role of natural gas has been maintained or strengthened in the energy mixes of Europe's economies, notably in Germany who had access to cheap competitive gas. In addition, Mr. Eyl-Mazegga highlighted that the energy transition has not advanced enough, with a severe underinvestment in low carbon technologies and the maintenance of carbon in the energy mix. He mentioned that many economies of the eurozone have entered recession, but that the question relies on whether the economic recession and high prices - notably energy prices – will last long or whether it will be avoided.

Mr. Eyl-Mazegga foresees that as a consequence of EU's brutal decoupling with Russia, the situation will be dramatic in the field of gas next year. Gas demand has decreased due to demand destruction and some fuel switching but not due to changes in consumer behavior or energy efficiency measures. In this respect, according to Mr. Eyl-Mazegga, Europe will need Groningen gas production in 2023 since 2023 will be super tight for Europe and the rest of the world. In addition, Europe needs to make a strategic decision on whether they want to enter into very expensive spot/short term LNG contracts or whether they want to make long term deals.

The REPower EU is a call to boost everything in Europe including, renewables, energy efficiency, biomethane, hydrogen etc. However, it is estimated that Europe would need about +700 GW by 2030. According to Mr. Eyl-Mazegga a lot of LNG will be needed for the next one or two decades. In Mr. Eyl-Mazegga's view, to avoid energy shortfalls, the solution should include a mix of nuclear, LNG, renewables, energy efficiency and other low carbon technologies working together.



Item 9 – Company reports

Mr. Demoury reminded that written company activity reports had been posted on the website.

Mrs. AZZIMONTI from ENI presented updates on the Mozambique FLNG and Congo FLNG projects.

Mrs. Azzimonti mentioned that Mozambique FLNG and Congo FLNG projects shared the common features for ENI when investing in these projects. Both are fast track developments to swiftly monetize the discoveries quickly and both are investments in new frontier environments – greenfield projects in the LNG market. She mentioned that the fast-track approach is different in the two projects. From the beginning of the discovery the intention of ENI has been to monetize as soon as possible the discovery in Mozambique: In 2006 ENI acquired an operator share in area 4 in the offshore Rovuma basin. Between 2011 and 2014, ENI discovered 2.4 Tcm of gas in the fields of Coral, Mambar and Agulha. In 2017, ENI and its partner, took FID on the Coral South project, the fist ultra-deep water floating in the world representing the only FID taken in 2017.

Coral Sul was developed with an approach of energy optimization, achieving energy consumption below industry benchmark, reducing the carbon footprint. The project has been delivered in time and in budget. On Sunday 14 November 2022, Coral South delivered the first cargo, and Mozambique is now entering the group of exporting countries.

In the case of Congo, the objective is to leverage existing upstream to free up production that exceeds Congo's domestic needs and taking into account the advantage of the current market window. ENI has a long-term partnership with the local partner, and is operating in Congo for more than 50 years, by supplying gas to the power plant which is producing more than 70% of the country's electricity production. In April 2022, the CEO of Eni signed a letter of intent with the minister of hydrocarbons in the Republic of Congo, to accelerate natural gas production to start an export project. In August 2022, ENI acquired Exmar Tango liquefaction unit that allows a faster development of Marine 12 Block. In this respect Congo will enter the group of exporting countries by the end of 2023.

The fast-track approach has an advantage in terms of the timing but comes at a cost of the size since the projects area smaller and are technologically more complex.

Mr. HIROAKI from ENEOS Corporation gave a presentation on LNG STS (Ship to Ship Transfer) opportunity at the Hachinohe LNG Terminal.

Mr. Hiroaki provided an overview of the company, highlighting that Eneos group is the largest integrated energy company in Japan, with approximately 50% domestic market share in the fuel oil sales. 50% of the gasoline oil stations in Japan belong to Eneos but is also involved in other businesses: LNG/Natural gas, renewable etc.

Regarding the natural gas / LNG business, the business started in the 1980's and the company is involved in several liquefaction plants and also distribute natural gas, LNG and Carbon neutral LNG in the domestic market. Mr. Hiroaki highlighted that Eneos believes that LNG will serve as a transition fuel.



Eneos is involved in the four areas in Japan with the following regasification terminals: Mizushima LNG, Kushiro LNG, Hachinohe LNG and Shimizu LNG and it imports roughly 1.0 mtpa.

Eneos has a plan to provide STS operations at the Hachinohe LNG terminal. More LNG production is expected from the US in the coming years, however sometimes it is not possible to receive the LNG due to physical constrains, so the company is looking into break bulk the cargo into smaller vessels and deliver to other regions in Asia, which would provide flexibility to LNG domestics. Eneos is working closely with regional authorities and partners to seek for business opportunities.

Mr. TIJHUIS from Gasunie gave presentation on German LNG Terminal.

Mr. Tijhuis form Gasunie provided an overview of German LNG Terminal. He explained that it initially started six years ago with the aim of phasing out coal and lignite, under the context of decreasing nuclear power and decreasing Dutch natural gas production.

It became a different situation in 2022, with a change in the shareholders of the company – including the participation of KFW – the German State Bank, Gasunie and RWE.

The terminal was already included in the National Development Plan a few years back, the exemption decision from the regulator was approved by the European Commission in 2020-2021 and had several agreements with the adjacent industry in place, and EPC was signed earlier this year. The project will be financed through equity. According to the plan, permitting will be finalized early 2023 and construction will start shortly after. The Floating project is being prepared and under construction because the FSRU will start operations by the end of 2022 or early 2023 (not a project of Gasunie), and the terminal will be finalized by mid-2026 and will include 2 tanks. The terminal could be expanded from 8 bcm to 10 bcm.

Mr. VELTER from Gasunie gave presentation on EeemsEnergy.

Mr. Velter mentioned that EeemsEnergy is a fast-track project. Eemshaven is quite a simple project with two regasification units: a closed cycle facility and a another one using the seawater temperature connected to an external heat source. Both together will be able to reach 8 Bcm which could be increased to 10 Bcm. It is 100% owned by a subsidiary of Gasunie which is an infrastructure company in the Netherlands. In the last years, Gasunie has been transformed to an Energy company to develop hydrogen infrastructure, BioLNG, Heat systems and CCS.

Mr. Velter highlighted that it has taken only 6 months to complete the terminal and the first send out took place on September 16, 2022.

There are two FSRUs, one from Exmar and the other from New Fortress Energy with a total 8bcm capacity and three capacity holders in the terminal.

The success factors included: a tight gas market and high TTF prices, a clear goal and sense of urgency, deadline based planning, dedicated team, good cooperation with regulatory and governmental bodies, parallel processes in engineering, commerce, regulation, reverse engineering, reuse and direct to construction phase, good preconditions, location with space, quay, water depth, close to high pressure grid (2,5 kilometer), close to heat source (500 meters), willingness to take risks by Gasunie and customers and short duration of the project (5 years).



Item 10 - Decarbonising the LNG & Gas supply chain

Mr. Law, Head of Gas, LNG and Carbon Consulting at Wood Mackenzie gave a presentation on decarbonization of the LNG & Gas supply chain.

Mr. Law mentioned that the decarbonizing the LNG & Gas Supply Chain as well as other fuels, has gathered great momentum in the past years, however the LNG industry has been struggling to defend its position with regards to the environmental credentials of LNG. From an emissions perspective, LNG might be better than coal but not all LNG supply is the same. The supply/transport emissions for LNG can vary dramatically from project to project.

The main drivers for the differences include the fact that upstream emissions can significantly vary due to factors such as processing, transportation and methane losses; high reservoir CO2 can have a massive impact on a project's overall emissions; liquefaction emissions are impacted by turbine efficiencies and with electric drive, electricity sourcing; shipping distance is a key factor but it is also impacted by ship size, population and fuel. Regasification is relatively unimportant in the LNG value chain emissions.

LNG is leading the way in the fossil fuel space with respect to monitoring, reporting and offsetting emissions with different reporting frameworks & methodologies -including the GIIGNL Framework- and some industry activity which include using carbon offsets from voluntary markets, number of offset cargoes, long term LNG contracts increasingly adopting clauses reflecting commitment to reporting emissions, inclusion of mitigation strategies ahead of offsetting.

2019 saw the emergence of Carbon Offset LNG cargoes. However, in 2022, the dramatic decline in reported cargoes seems to reflect a lack of reporting rather than the absence of actual carbon offset cargoes. The main reasons for this could include the fact that the energy crisis in Europe has occupied more time than reporting offset cargoes, reporting offset cargoes is becoming business as usual and negative publicity that some companies faced regarding the offsets used or their energy intensity criticisms when they announced their carbon neutral cargoes is discouraging companies from making further announcements.

Regarding the reduction, Mr. Law said that there are areas across the globe where significant reduction is taking place through responsibly sourced gas programmes, CCS and reduction of liquefaction emissions through electrification and use of low carbon power supply. He provided examples of projects where significant emission reduction has taken place by using these solutions. However, Mr. Law highlighted that there needs to be a motivation to implement them since the cost of these efforts varies significantly as not all solutions can be used in all projects.

Mr. Law highlighted that widescale adoption of the GIIGNL framework (or equivalent) creates a standard for everyone to follow but industry buy-in is key, however measurement and reporting is only half the battle and reduction of emissions becomes fundamental. There is a need for continued focus on implementing measures that reduce emissions, with offsetting only being used for emissions that cannot be reduced and most likely carbon offset cargoes will continue to be traded but become part of "business as usual". Mr. Law said that the LNG industry itself needs to drive change and transparency is key and will allow the industry to be on the front foot.



Mr. DECRÖES provided update on the activities of the Technical Study Group.

Mr. CHAVERON provided update on the activities of the Commercial Study Group.

No comments were provided by the General Assembly representatives.

Item 12 – News from Associated Organizations

Mr. Demoury thanked the associated organizations who joined the meeting, in particular Eurogas and Marcogaz.

Mr. Demoury reminded that the reports from affiliated Associations have been posted on GIIGNL website.

Item 13 - Next events

Mr. Demoury reminded that the 2023 Executive Committee will be held at the in Panama from May 21 to May 23 at the kind invitation of Cheniere and thanked Cheniere for the efforts deployed in arranging and successfully rescheduling the meeting.

Mr. Walker confirmed that Cheniere will be hosting the 2023 Executive Committee in Panama and will have a trip to visit the Panama Canal.

Mr. Demoury informed that for the moment there was no offer to host the 2023 General Assembly.

Ms. Acuna from Shell offered that Shell hosts the 2023 General Assembly in Dubai.

Mr. Demoury informed that GIIGNL had not received any proposals for the 2024 EC and GA yet.

Item 14 – Any Other Business

Mr. Abiteboul asked General Assembly representatives if they would like to add anything else.

Mr. Gordenker made some short remarks regarding the benefits that LNG has brought in its 50 years of history, including reducing pollution, reliability of power and said that now, LNG buyers need to understand the global warming impact of LNG and work with that responsibly. He highlighted that more dialogue is needed between suppliers and buyers to see if the industry can come up with a framework for a transition that needs to happen.