



البتروال الوطنية  
**KNPC**

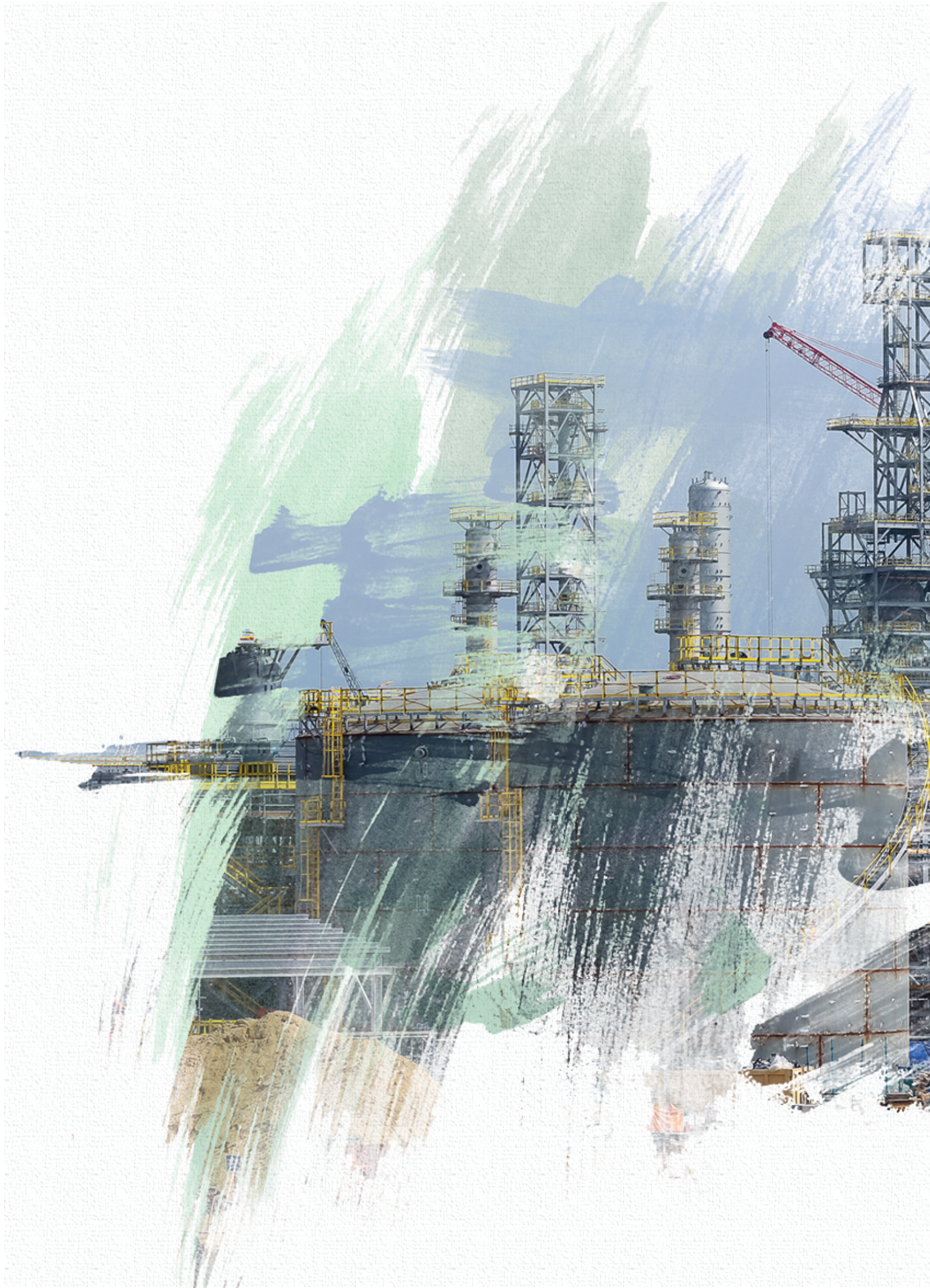
إحدى شركات مؤسسة البترول الكويتية  
A Subsidiary of Kuwait Petroleum Corporation



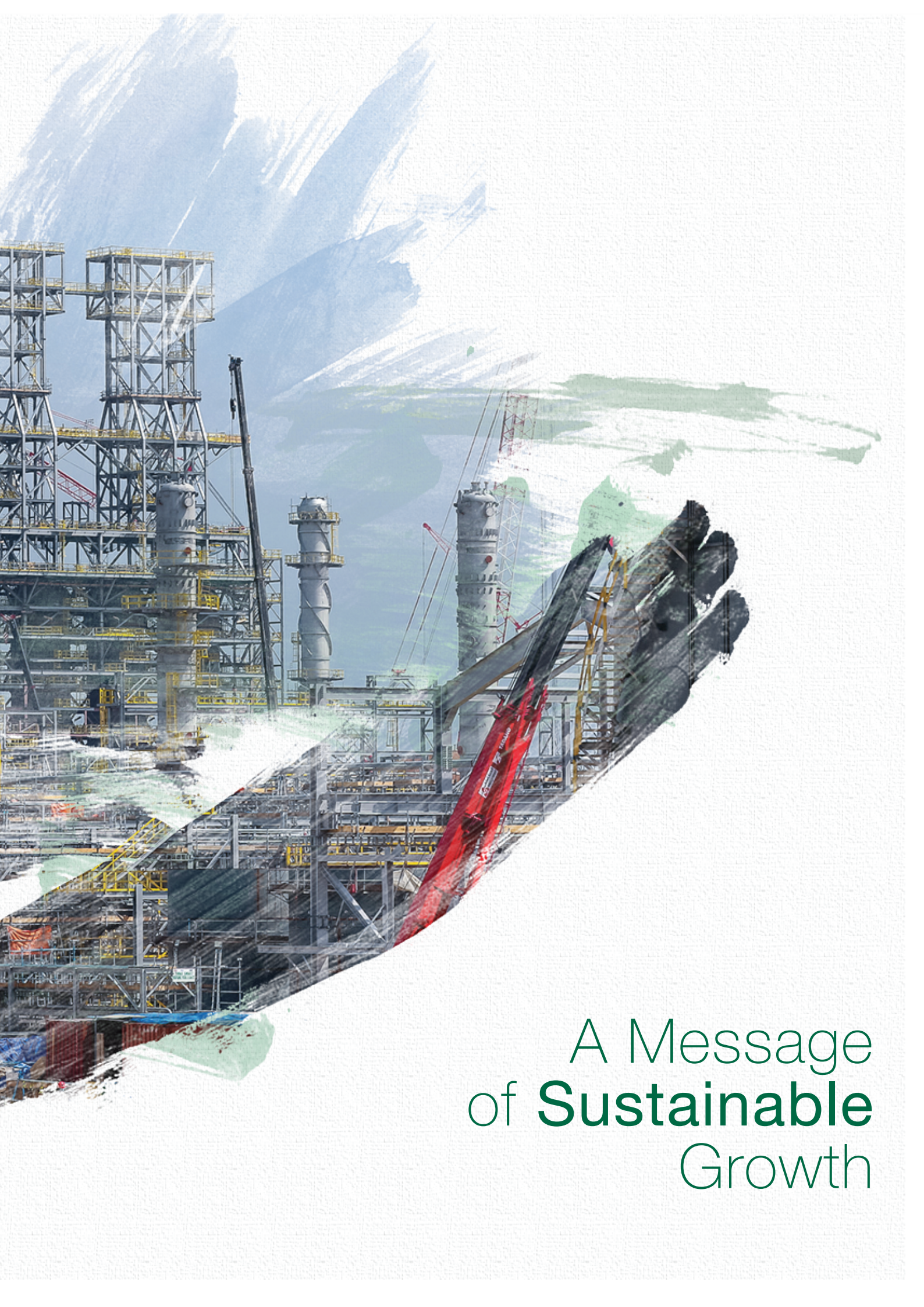
# SUSTAIN -ABILITY

A Message of Sustainable Growth









A Message  
of **Sustainable**  
Growth









His Highness  
**Sheikh Sabah Al Ahmad Al Jaber Al Sabah**  
Amir of the State of Kuwait









His Highness  
**Sheikh Nawaf Al Ahmad Al Jaber Al Sabah**  
Crown Prince of the State of Kuwait



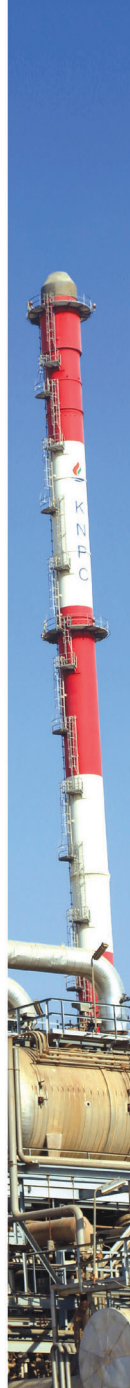
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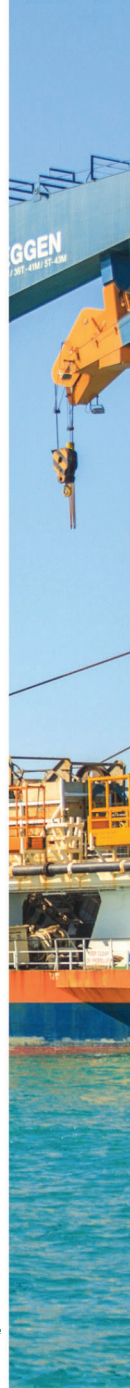
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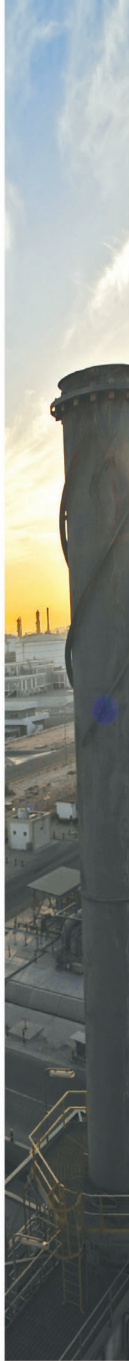
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“ WE SEEK TO BE A  
LEADING PLAYER IN  
THE GLOBAL OIL AND  
GAS DOWNSTREAM  
SECTOR ”

**MOHAMMAD GHAZI AL-MUTAIRI**  
Chief Executive Officer







# Statement G4-1 CEO

**Kuwait** National Petroleum Company is pleased to hold our commitment to you our stakeholders to produce a Sustainability Report that incorporates the performance of the Company as well as our strategy towards sustainable development. I am pleased to share with you some of this year's priorities, which incorporate the guidelines highlighted in the KNPC strategic objectives, they are:

- High concern in health, safety and environment procedures to ensure a safe work environment at all work sites. Consistent training and due diligence safety checks of all personnel at our sites is our ongoing daily priority.
- Emphasis on our main asset and core stakeholder, our employees. Investment in our employees, through training and certification and the knowledge betterment of our staff is a key priority for the Company. This past fiscal year witnessed huge turnover of retirees and has left a gap between the experienced staff members and the newly appointed employees. This gap has been identified by the Company's Enterprise Risk Management Department and KNPC with the support of Training and Career Development Department has implemented a program for the re-hiring of key employees who provided valuable service to the Company, to join KNPC as Consultants to train and oversee the new generation of KNPC employees.
- Improve KNPC financial and commercial performance through maximized operation and production capacity. The reduction of unscheduled work interruptions is crucial to obtain maximized production and assisting the company in reaching its set goals.
- Focus on the nationwide project, the Clean Fuel Project (CFP). The completion of this project is

projected to be completed in mid 2019. Serious preparations and intensive efforts go unabated to secure a safe commissioning of this vital project.

The main objective of CFP is to provide an economic feasibility element, through the Project Internal Rate of Return (IRR) expected at 11.5%, which is considered high return for a project of this magnitude. Instead of selling crude oil directly to the market, the project will add value to Kuwait natural resources and increase the Country's share in the international arena. This will assist in reaching the goal set by KPC and KNPC strategy that aims at raising the refining capacity of Kuwait to 1.4 million barrels per day. As well as fulfilling the highest possible rate of energy manufacturing at local refineries to meet the local and international demand of high quality petroleum products. After commissioning, both Refineries will fulfill the local and international demand for clean fuel that meet the most stringent environmental requirements. With our commitment to maintaining our reputation of being a major employer, this project will create numerous job opportunities for the community of Kuwait.

This past year also marked the retirement of the Company's Shuaiba (SHU) Refinery. This historic event celebrates one of the most important



facilities in the history of the Company. SHU Refinery will continue to serve the Company as a depot and storage facility for the CFP project as it sits strategically between our existing (2) Refineries, Mina Al Ahmadi & Mina Abdullah.

Along with the retirement of one of KNPC's key facilities, we also witnessed one of the Company's mega projects, the 4<sup>th</sup> Refinery (Al-Zour Refinery), established itself as its own subsidiary under Kuwait Petroleum Corporation (KPC), and became known as Kuwait Integrated Petroleum Industries Company (KIPIC).

This Report will focus on our environmental initiatives, economic performance as well as our social awareness. As a major Oil Refiner with a capacity exceeding 335 billion barrels a year and a sole supplier to energy to the local community, we have consistently been committed to enhancing the oil and refining industry and maximize the value of Kuwait's hydrocarbons.

As the world evolves so does KNPC, with the hot topic of renewable energy, we are pleased to be a part of a nationwide campaign "Al-Dibdibah" that is set to reduce the Country's electricity consumption by 15%. Through KPC, KNPC as well as other subsidiaries have committed to this target. KNPC will begin with furthering our solar energy path. We have previously installed solar panels in two filling stations. By the targeted 2020 projection with the expansion of 100 new filling stations, all of which will have solar paneling installed.

This year KNPC has been asked by KPC to take ownership of a two-year project to oversee and assist KPC with the production of its Sustainability Report. Due to our extensive experience, it is a testament to our commitment to our stakeholders to share knowledge and bring the sector together to have one report that represents K-company sector. However, with the production of the KPC Sustainability Report, we at KNPC will continue to provide our stakeholders with a Sustainability

Report every other year as previously promised.

My greatest hope is that as each one of you read this report, the message that we are conveying becomes clear. We at KNPC are committed to protecting our environment, to perform in a manner that is economically beneficial for our beloved Country, as well as give back to the people of Kuwait through our social awareness.

This Report is our **MESSAGE OF SUSTAINABLE GROWTH.**



**MOHAMMAD GHAZI AL-MUTAIRI**  
Chief Executive Officer





# About the Company

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**Kuwait National Petroleum Company (KNPC)** is one of the leading energy companies in the State of Kuwait focusing on downstream oil and gas operations. We are committed to meeting local and global energy needs in a sustainable manner. We are a Company with a deep history rooted in the Kuwaiti culture. We seek to satisfy the growing energy needs, while being fully committed to being environmentally cautious, thus, simultaneously delivering the best possible product.

KNPC is a state owned oil refining and gas liquefaction company and a subsidiary of Kuwait Petroleum Corporation (KPC), operating within the State of Kuwait. Its main office is located in Ahmadi City, approximately 40KM South of the capital, Kuwait City. It is the sole supplier of all petroleum products, liquefied gas and bitumen to the local market in retail and wholesale amounts. By 2016/2017, KNPC owned and operated three Refineries, a gas liquefaction plant as well as petrol stations serving different parts of the country. KNPC will begin with furthering the solar energy path. We have previously installed solar panels in two filling stations. By 2020 and with the expansion of 100 new filling stations having solar paneling installed, this can assist the Country to reach the target, as set by the Al-Dibdibah project.

With over 6,000 strong workforce, KNPC rates as one of the largest companies in the State of Kuwait.

We provide employment to over one third of the labor force in the Kuwait Oil Industry, 75% of our workforce are Engineers, Foremen and Technicians who are trained to master the refining technology and information know-how so as to carry out demand of the domestic oil refining and gas liquefaction industry.

For clarifications or inquiries please contact us through [www.knpc.com](http://www.knpc.com)





# About the Report

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**This** Biennial Report was prepared in accordance with the Global Reporting Initiative Sustainability Reporting Guidelines (GRI4). KNPC operates exclusively within the boundaries of Kuwait. All activities outside Kuwait are undertaken by other subsidiaries of Kuwait Petroleum Corporation. The reporting cycle is during the period of April 2016 – March 2017. The biggest change in this Report is Al-Zour Refinery no longer being under KNPC's jurisdiction, but rather has been established as its own subsidiary. Kuwait Integrated Petroleum Industries Company (KIPIC).

This Report was produced with the introduction of the Company's first data automation software for the collection of data. The data collection process has evolved from manual entry of data to fulfill Key Performance Indicators (KPI's) to a more systematic environmentally friendly approach.

This Report was prepared using the same methodology as the previous Reports. There was a brainstorming session to review the materiality chart as well as KPI selection. We reviewed feedback from the previous reports until now from our stakeholders.

Since the last Report 2014 / 15, the Company has also prepared a concise Stakeholder Engagement program that incorporates all departments of KNPC and provides a guideline as to what type of engagement should be conducted with each stakeholder. Throughout this Report, you will be able to see how integrated our Stakeholder Engagement plan has evolved. This Report was also assured and verified by a 3<sup>rd</sup> party, and successfully completed the GRI Materiality Disclosures Service as is evident at the end of this Report, noting that GRI labels will be mentioned only at the beginning of each section and index will be referring to the exact information page.







# Materiality

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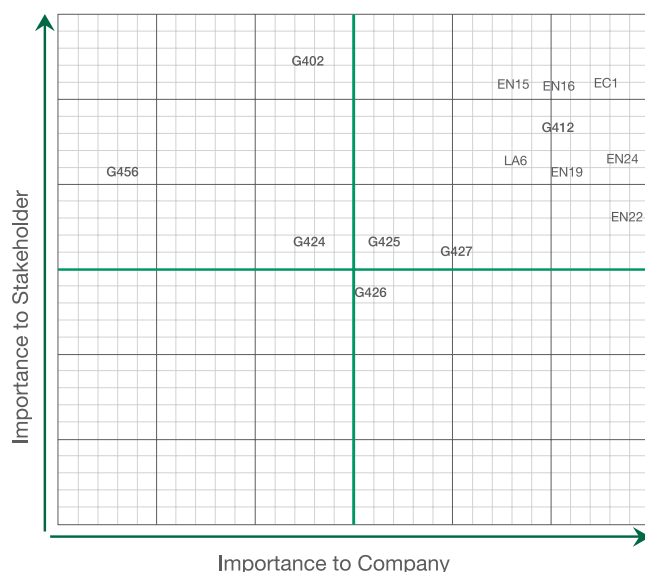
**During** this 4<sup>th</sup> round of the Company's KPI sustainability materiality chart, we approached the brainstorming in a slightly different approach. With our newly developed companywide Stakeholder Engagement process, we were able to incorporate the risks that were identified by our stakeholders as well as highlight Management's strategic vision for the Company.

The selection of the KPI's were selected from within the GRI4 index. Our priorities to focus on for this Report were Safety, Environmental Protection, the Career and Training investment that we provide to our employees in addition to highlighting the progression of our national project the Clean Fuel Project.

The materiality chart is not a permanent entity and is subject to change from one report to the next. However, safety of our employees and environmental protection will continuously be of high priority to KNPC.

## Materiality Chart

The KPI's Selection are as follows:



**G4-2** Key impacts, risks, and opportunities.

**G4-9** Report the scale of the organization.

**G4-12** Describe the organization supply chain.

**G4-24** Provide a list of stakeholder groups engaged by the organization.

**G4-25** Report the basis for identification and selection of stakeholders with whom to engage.

**G4-26** Report the organizations approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group.

**G4-27** Report the key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics.

**G4-56** Describe the organization's values, principals, standards and norms of behavior such as codes of conduct and code of ethics.

**G4-EC1** Economic value generated and distributed.

**G4-EN15** Direct greenhouse gas emissions.

**G4-EN19** Reduction of greenhouse gas (GHG) emissions.

**G4-LA6** Type of injury and rates of injury.

# Corporate Governance

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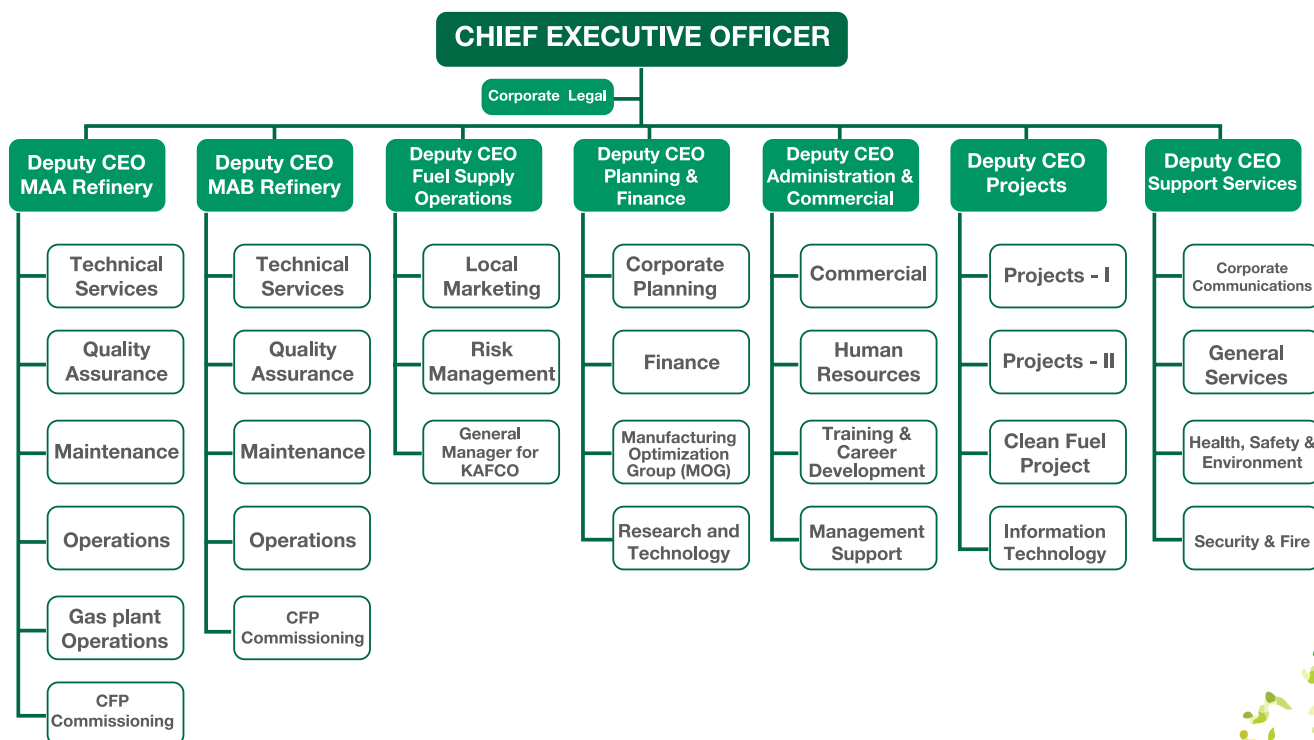
**This** past fiscal year witnessed a restructuring of the Company's Management, with the addition of (3) new Deputy Chief Executive Officer (DCEO) posts. This enhancement is to segment the Company towards a more lucrative organization. There is an emphasis on our core business, and that is made apparent with a newly appointed DCEO of Fuel Supply Operation.

One of the most successful lines of communication between our Management and every level of employees is known as our KNPC Regular Communication Meetings (KRCM).

These meetings take place monthly in each Department and are inclusive of Management updates:

- Profit performance per month.
- Updates on the Company's mega projects.
- Updates on oil sector.

In turn, the employee is allowed to register an inquiry or concern around the well-being of the employee, safety, or general feedback. The meetings are minuted and each feedback is then sent to the concerned department for response.







# Top Management

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**MOHAMMAD G. AL-MUTAIRI**  
Chief Executive Officer



**Mutlaq Al-Azmi**  
DCEO - Mina Abdallah (MAB)



**Fahad Al-Dihani**  
DCEO - Mina Al-Ahmadi (MAA)



**Abdullah Al-Ajmi**  
DCEO - Projects



**Khaled Al-Khayat**  
DCEO - Planning & Finance



**Nasser Al-Shamaa**  
DCEO - Support Services



**Basem Al-Issa**  
DCEO - Administration & Commercial



**Jamal Al-Loughani**  
DCEO - Fuel Supply Operations

# KPC Downstream Strategy 2040

**KNPC** held a number of workshops to define its specific Mission and Vision. Primary areas for improvement were highlighted as:

- (1) Account for both operational and financial performance.
- (2) Ensure a more clear and concise articulation of Mission and Vision.
- (3) Account for specific nuances in each downstream sector company.
- (4) Account for both internal and external enablers.

**As a result, the KNPC- Board endorsed the following Mission and Vision**

**Vision:** To be a world-class refiner through superior operating and financial performance.

**Mission:** We add value to Kuwait's hydrocarbons, producing high quality fuels to meet local and international demand by:

- (1) Being driven by commercial sustainability.
- (2) Protecting the environment and being committed to health and safety.
- (3) Investing in our people.
- (4) Leveraging innovation and adopting the highest standards to achieve operational excellence.
- (5) Being a committed and reliable partner in our communities & operational markets.

“KPC 2040 is a concise overview as to our plan to continue to be a world class integrated refining and petrochemical player. By carrying on our commitment of investing in our employees, enhancing our protection of the environment and promoting training in health and safety protocols, we at KNPC have complete confidence that the objectives we have set for 2040 will be reached and enhance the overall production of the oil and gas sector of Kuwait.”

**Nasser Al-Shamaa**  
DCEO - Support Services







# Areas of G 4 - 4 G 4 - 8 Operation

## Mina Al-Ahmadi Refinery (MAA)

**With** a total capacity of around 466 thousand barrels a day, MAA is naturally the largest Refinery in Kuwait and one of the largest oil refining plants in the region. Its total throughput reached during this year 155.7 million barrels running at the daily average rate of 425.3 thousand barrels, compared to an average rate of 411.6 thousand barrels per day in the previous fiscal year.

Petroleum Products exported from Mina Al Ahmadi reached around 11,923.0 thousand metric tons this year, exported from MAA oil piers, in addition to 753.5 thousand metric tons of Sulphur and 347.2 thousand metric tons of tanker oil.

Among the Refinery main achievements during this period are:

- Operating Eocene unit on West Crude as of 10<sup>th</sup> of August 2016 instead of the Eocene oil in order to be able to produce Bitumen meeting quality specifications.
- Refinery Flare loss recovery was improved to around 2.2MMSCF/D compared to actual figure of the previous fiscal year of 6MMSCF/D by replacing flare valves, gas traps and seal leaks of gas compressors.
- Fuel oil temperature to Al-Zour Power Station was maintained between 67 and 72C degree. An average of 8K.Ton/Day of fuel oil was supplied to this station during summer. Thus avoiding burning of crude oil and gaining between 12-16 million US dollars in profit per month.
- Fluid Catalytic Cracking units in the Refinery was successfully commissioned on 25<sup>th</sup> of December 2016 after revamp of the new reactor and internal regenerator and fractionator.
- In the meantime, MAA kept HSE standards on top of its priorities giving the utmost attention and care, and maintained a safe record during the fiscal year. The Refinery won the British Safety Council award for this record and was presented

with the gold medal of the Royal Society for Prevention of Accidents, RoSPA. The Refinery has been winning this prestigious award annually since the year 2002.

## Mina Abdulla Refinery (MAB)

The Refinery throughput during the current fiscal year totaled around 96.61 million barrels at the average rate of 264 thousand barrels per day, compared to 97.7 million barrels and the average daily rate of 267 barrels in the previous fiscal year. This slight decrease was the result of operating one of the Crude Distillation units in less than its usual capacity for a certain period of time.

Products exported from MAB Refinery via the Sea Island totaled 9,740.5 metric tons, compared to a total of 10,001.221 metric tons in the fiscal year 2014/2015. On the other hand, a total of 3,969.4 metric tons of Coke and other products were exported from Shuaiba Harbour. In all, the Refinery exports totaled 13.70 million metric tons during this fiscal year showing a slight decrease from last year exports which were around 13.98 million metric tons of finished products.

The Refinery has developed detailed plans for making all its departments ready for Clean Fuel Project pre-commissioning, commissioning and start up activities. A task force has been created to undertake this mission.

In recognition of its high performance in Health, Safety and Environment protection, MAB Refinery continued receiving the Gold Medal of M/S RoSPA (Royal Society for Prevention of Accidents) for the second consecutive year. It was also awarded the Bronze medal of the CEO for HSE performance.





## Refineries Output

Net petroleum products from the three Refineries in the fiscal year 2016/2017 amounted to 42.4 million metric tons showing a slight decrease from their amount in the previous fiscal year which reached 42.7 million metric tons.

Products breakdown in the three Refineries and their percentage in the total output are shown in the following table:

### B-LPG

Feedstock to the Gas Plant at Mina Al-Ahmadi Refinery amounted during this fiscal year to 1686.7 million cubic feet per day against 1508.8 million cubic feet per day in the previous fiscal year. This average rate represents the available amounts of gas from the fields as well as from the three Refineries. Total Propane and Butane Exports from the LPG plant amounted to 4483 thousand metric tons compared to 4204.6 thousand metric tons in the previous year showing 6.6% increase.



## Oil Refining in the Three Refineries between 2011/2012 - 2015/2016 (1000 Barrels Per Day)

Refinery	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016
Shuaiba	177.7	193.9	192	186.6	167.8
Mina Abdullah	247	272	255.6	267.7	264
Mina Al-Ahmadi	416.9	451.7	411.95	411.6	425.3
<b>Total</b>	<b>841.6</b>	<b>917.6</b>	<b>860.2</b>	<b>865.9</b>	<b>857.1</b>

# Supply Chain

G 4 - 12

**Oil Refining in the three Refineries during FY - 2016 / 17 are as follows:**

Refinery	MBPD
Shuaiba	191
Mina Abdullah	228.8
Mina Al-Ahmadi	401.5
Total	821.3

**Products are detailed in the following table:**

Product	Total in Thousand Tons	Percentage on Crude
Naphtha / Gasoline / Reformate	8,544.3	20.5
ATK / KERO / LP-5	7,847.1	18.9
Gas Oil / Diesel	10,024.9	24.1
Fuel Oil / Residues	11,362.6	27.3
Others	2,878.8	6.9
Consumption / Losses	937.3	2.3

## LPG

1. Feed stock to the LPG plant at Mina Al-Ahmadi Refinery amounted to 1682.5 million cubic feet a day.

2. Total Propane and Butane exported during FY - 2016 / 17 4570.4 Thousand Tons.

**The following table shows a breakdown of the LPG plant production:**

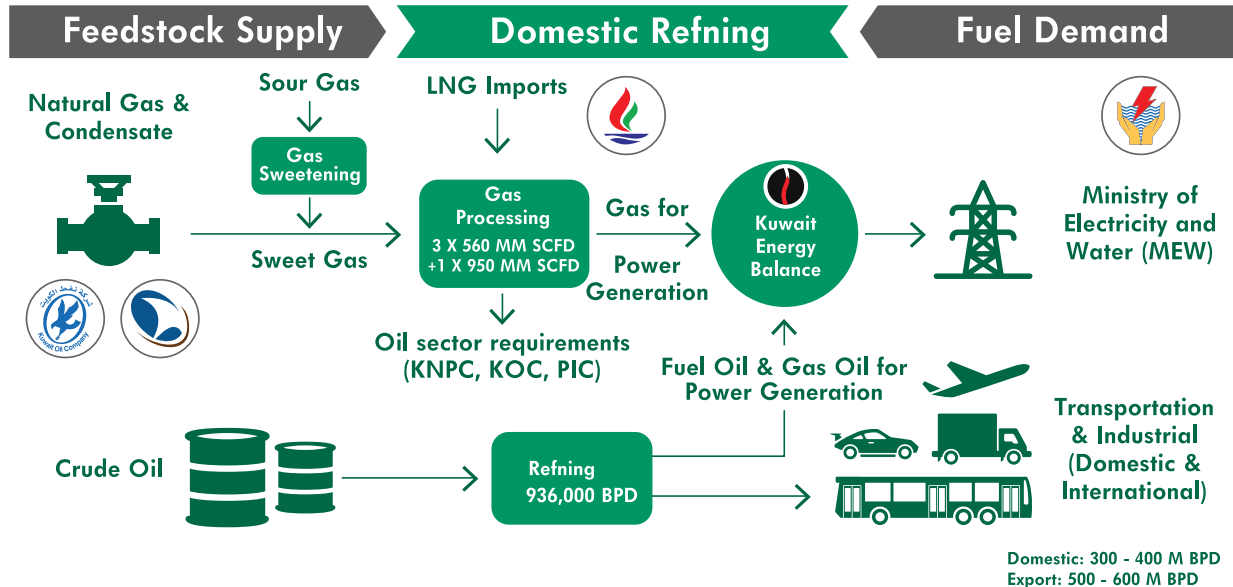
Product	Thousands Tons	Wt%
Propane	2,647.0	41.2
Butane	2,225.0	34.6
Natural Gasoline	1,560.0	24.3
Liquid Products	6,432.0	100.0







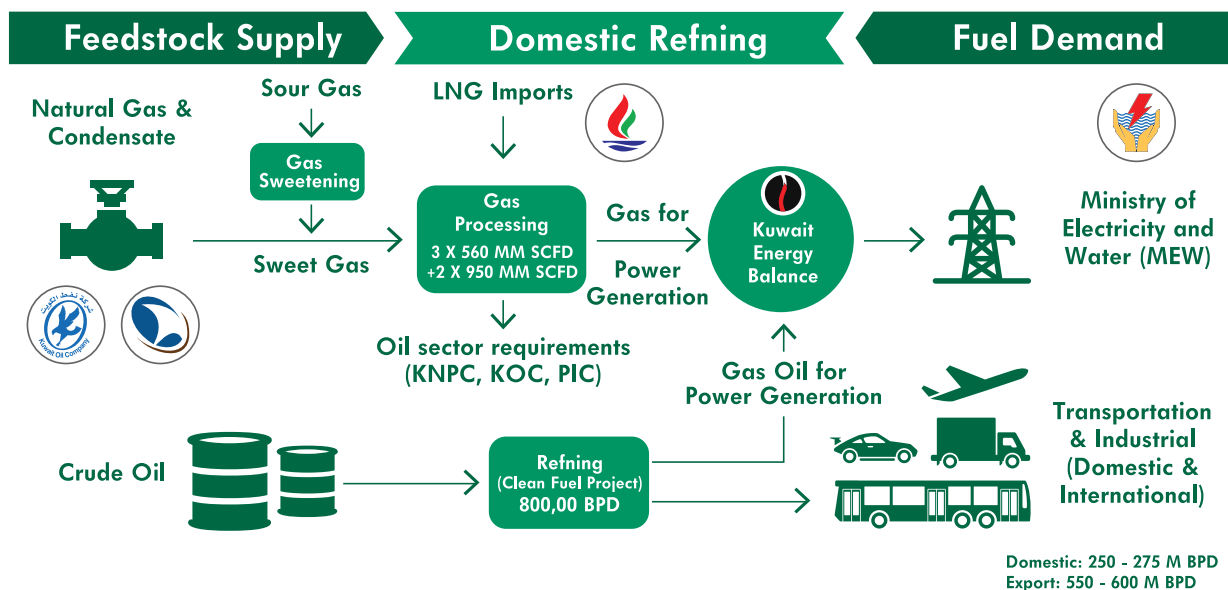
## Position of KNPC in Value Chain of Kuwait



KNPC is responsible for Domestic Refining & Gas Processing to satisfy the local fuel demands from Power Generation, Transportation, Industries & Domestic and supply products for International market

## Future Projections

### Position of KNPC in Value Chain of Kuwait - Future



KNPC is responsible for Domestic Refining & Gas Processing to satisfy the local fuel demands from Power Generation, Transportation, Industries & Domestic and supply products for International market







“The core business of Corporate Communication is to enhance the reputation and brand image of KNPC among our Stakeholders. To be able to give back to the community through our social awareness campaigns focusing on Health, Safety and Environment is an honor, and to see the differences that we make in the community is the essence of our Corporate Social Responsibility Initiatives.”

**Khuloud Saad Al-Mutairi**  
Manager Corporate Communication



# Stakeholder Engagement

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**In 2016**, KNPC embarked on a new era of Stakeholder Engagement. Consultants were hired to do a study on the current stakeholders that each Department was engaging with. After a base study was conducted, we were able to identify, map and prioritize the Company's stakeholders. This brought the engagement that the Company conducts to a new level. For branding purposes, we also conducted a Community Index Survey in which 500 random Kuwaiti person(s) were asked a series of questions related to the identity of the Company and whether were communicating the Company's initiatives and projects in the right medium.

A Stakeholder Engagement Committee was established consisting of relevant Managers that had a significant amount of stakeholders that they were engaging with. Monthly, this Committee will meet and they are asked prior to the meeting to fill out a form listing which stakeholder they were engaging with and what form of engagement was initialized.

Each engagement is then reviewed by the Committee as a whole and any risks are advised against. The reason for combining several Managers in this Committee is for peer feedback. We would like to be able to have both technical and admin input into the engagement that is conducted with the Company's stakeholders.

On a quarterly basis, the facilitator of the Committee will then prepare a report that consists of all that was covered in the meeting and all risks that were identified and to the gaps that were closed.

With the growing complexity and dynamics of their operating environment, global businesses are becoming ever more dependent on working together with their stakeholders. Organizations seeking to explore new opportunities, develop strategic alliances, or better manage image and reputation, are increasingly integrating Stakeholder Engagement into their business operations.

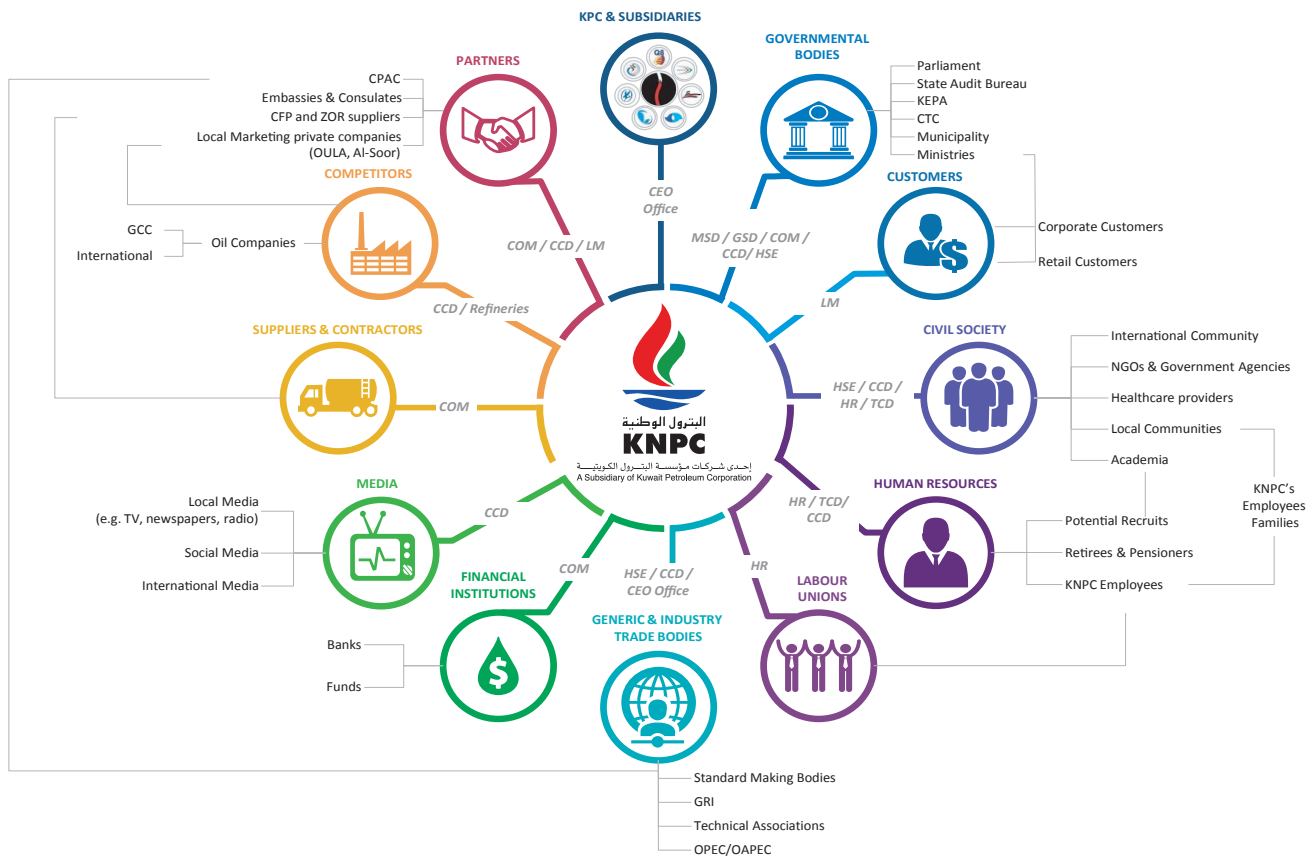
As a large company, KNPC's activities affect or are affected by numerous stakeholders. As such, engaging with them on topics relevant to them and to the company's operations is a strategic necessity.

## KNPC's Performance can Benefit from Successful Stakeholder Engagement by:

- Better managing risk and reputation.
- Understanding the complex operating environments (Markets and culture dynamics).
- Developing trust-based relationships with stakeholders.
- Learning from stakeholders to improve their decisions and actions.
- Creating positive impact for the Company and society.
- Joining resources to gain insight, address challenges and achieve objectives that none of the parties could reach alone.
- Acting more responsibly by giving those who have a right to be heard the opportunity to be considered in decision-making processes.
- Identifying material issues for sustainability management and reporting.

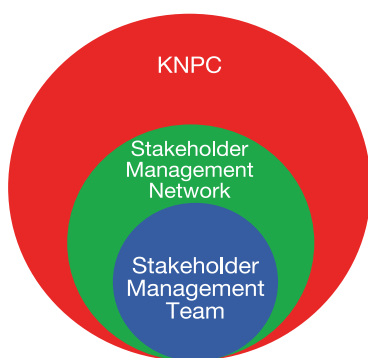






## Structure

## KNPC Stakeholder Management Network

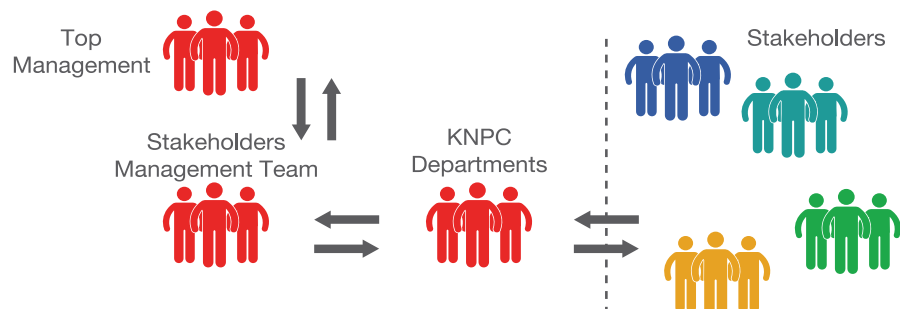


Aggregate input form departments and finalize list of topics

Compact central team internal advisor and driver of stakeholder engagement process  
Content owner



Representatives from relevant departments acting as internal ambassadors for the stakeholder engagement process



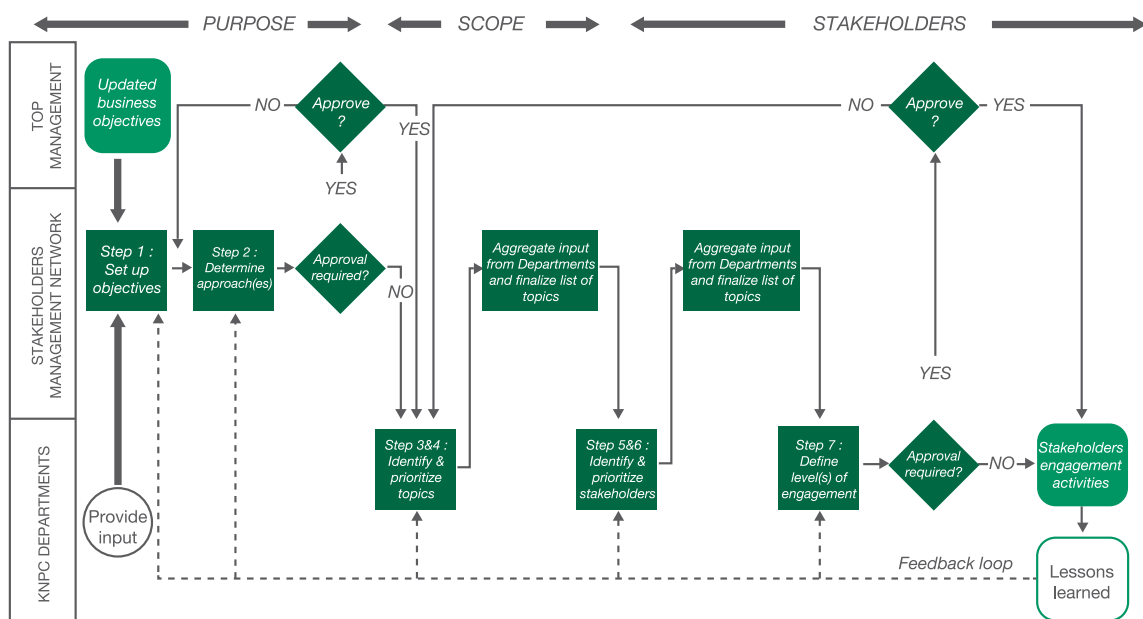
Stakeholder Group	Sub-groups	Custodian of the relationship	Topics	Current approach	Current engagement level	Targeted approach	Targeted engagement level
Generic & industry trade bodies	GRI	Corporate Communications	Sustainability Reporting	Proactive	Inform / Advocate	Proactive	Inform / Advocate
	Standard making bodies	HSE	ISO Certification	Proactive	Inform / Advocate	Proactive	Inform / Advocate
	Technical associations	HSE	Compliance to IPIECA and API standards	Proactive	Inform / Advocate	Proactive	Inform / Advocate
	OPEC/OAPEC	CEO Office	Petroleum policies, petroleum supply information	Reactive	Monitor	Reactive	Monitor
Financial institutions	Banks	Commercial	Financing contracts	Proactive	Transact	Proactive	Transact
	Funds	Commercial	Funds for ongoing projects	Proactive	Transact	Proactive	Transact
Media	Local Media (TV, newspapers, radio)	Corporate Communications	Information, incidents, achievements, new projects	Proactive	Inform / Advocate	Proactive	Inform / Advocate
	Social Media	Corporate Communications	Achievements, new projects, trainings, recognition, awards, competencies, holiday wishes, special announcement	Proactive	Inform / Advocate	Proactive	Consult
	International Media	Corporate Communications	Information, incidents, achievements, new projects	Proactive	Inform / Advocate	Proactive	Inform / Advocate
Suppliers & contractors	N/A	Commercial	Laborers, contractors, suppliers, consultants	Proactive	Transact	Proactive	Transact, and Consult
Partners	CFP & ZOR suppliers	Commercial	Laborers, contractors, suppliers, consultants	Leadership	Collaborate	Leadership	Collaborate
	Embassies & Consulates	Corporate communications	Mega-Projects (CFP/ZOR), expatriates contractors, visa, Kuwait entries	Leadership	Involve	Leadership	Involve
	CPAC	Commercial	Applying recommendation, current processes, suppliers and contractors' audits	Leadership	Involve	Leadership	Involve
	Local Marketing private companies (OULA, AL-Soor)	Local Marketing	Managerial issues, commercial agreements, KNPC product supply, recruitment, human rights contractual statements and HSE audits	Leadership	Involve	Leadership	Involve
Competitors	Oil Companies	Corporate Communications	For conferences and exhibitions	Reactive	Monitor	Proactive	Inform / Advocate, Consult
		Refineries	For technical papers and field visit	Reactive	Monitor	Proactive	Inform / Advocate







Stakeholder Group	Sub-groups	Custodian of the relationship	Topics	Current approach	Current engagement level	Targeted approach	Targeted engagement level
KPC & Subsidiaries	N/A	CEO Office	Regulation, best practices	Proactive	Consult	Proactive	Consult
Governmental Bodies	Ministries	All departments	Licenses, approvals, compliance	Reactive	Monitor	Proactive	Consult, Transact, Inform / Advocate
	Parliament	Management Support	Parliaments' queries, budget review, SAB audit results	Reactive	Monitor	Proactive	Inform / Advocate
	State Audit Bureau	Management Support	KNPC audits, observations, violations, investigations, fraud, corruption, issue resolution	Reactive	Monitor	Proactive	Inform / Advocate
	Municipality	General Services	Licenses and approvals for new land/projects	Proactive	Transact	Proactive	Transact, Inform / Advocate
	CTC	Commercial	Trending of suppliers	Proactive	Transact	Proactive	Transact
	KEPA	HSE	HSE, pollution, incidents, air emissions, environmental initiatives, violations	Proactive	Consult	Leadership	Collaborate
		Corporate Communications	Environmental events	Leadership	Collaborate	Leadership	Collaborate
Customers	Corporate customers	Local Marketing	Petrol sales (corporate, ministries), customers' complaints, surveys	Leadership	Involve	Leadership	Involve
	Retail Customers	Local Marketing	Petrol sales (retail, ministries), customers' complaints, surveys	Reactive	Monitor	Proactive	Inform / Advocate



# Corporate Policies

G4-11

G4-14

G4-15

G4-40

G4-56

G4-EN29

G4-HR4

G4-SO5

G4-SO7

G4-SO8

G4-PR8

## Compliance

**Up to this date,** there are about 600 lawsuits regarding the end of service payment for employees of the Company. The issue raised when the government introduced a new law which reduced the amount of money that employees of the Company received at retirement. The reduction in payment was caused by the restructuring part of the end of service (played by the Company) to other sectors as per Kuwaiti law. Due to the economic crisis, the government decided to restructure its social security, therefore lowered the retirement funds of the end of service in the oil sectors. The government decided that the proportion of the social security payments paid by the Company to be retained by the social security agency since employees of oil companies received much larger sums of payments at their end of service. The reason behind this discrepancy is that when the oil sector was first established, there was a lack of participation from the Kuwaiti nationals. The greater pay benefits were set to encourage Kuwaitis to join the oil industry and participate in growing the Country's economy.

The compensation given to Kuwaiti nationals is greater than non-nationals, as per Kuwaiti law. However, as part of the oil sectors, non Kuwaitis receive greater benefits than those working outside the sector. KNPC ensures that contractor employees are treated fairly. Therefore, if contractors do not pay their employees, KNPC pays them and deducts the amount from the contract.

Regarding lawsuits, there have been around 600 cases regarding the end of service payments. Some revived ruling in their favor while other cases are still pending in court. As a governmental entity, KNPC has to adhere to the laws and regulations of the State. There are no cases of bribery in the year 16/17 however, there has been 3 corruption cases one involving an employee who took money from finance then returned it.

Another employee utilized his position as security guard to benefit his own privately owned company and third case deemed confidential.

## Code of Conduct

Code of Conduct is a set of rules, values, and principles set by Kuwait Petroleum Corporation (KPC) as guideline for all employees working for KPC and its subsidiaries. As one of K-Companies, KNPC asks all of its employees to comply with the Code of Conduct to ensure the most professional and ethical business conduct.

There are a set of six segments covered by the Code of Conduct. Staff Appreciation introduces fair treatment and diversity acceptance between colleagues within the work environment. Commitment to Health, Safety, Security, and Environment (HSSE), which guides employees to understand and comply with HSSE standards. Citizenship and Social Responsibility explains that all employees within the Company should work for the good of the country following the common interest of other K-Companies. Ethical Business Conduct segment addresses guidelines for employees to follow in cases of sensitive ethical cases such as bribery, corruption, fraud, and conflict of interest. Confidentiality explains the professionalism in protecting work information and maintaining trust and respect in the workplace. Reporting respect in the workplace. Reporting is the final chapter and it explains that employee should report and justifies violations of Code of Conduct.

The Code of Conduct has a system manual for reporting on breaches and violations.

A Compliance Officer is the person responsible of receiving complaints, investigation, providing disciplinary action, and documentation of records. Reporting a breach in the Code of Conduct starts when an informant sends a complaint to a





Compliance Officer who in turn will start analyzing, investigating, and verifying all related information. If the complaint case study result was a No Violation, then the case is closed, documented and the informant will be informed of the result. If the study result was a Violation, then the case will be processed to the CEO. An investigation committee will be formed if the violation was major. If the violation is related to the policy of Disciplinary action, the Human Resources will take on the investigation. The Compliance Officer will receive recommendations after the investigation is conducted to take the proper action before closing the case and documenting the report.



## Cyber Security

KNPC takes Cyber Security related threats quite seriously and is taking several methods to decrease these risks. First, Information Security division was given the responsibility to measure the current Cyber Security gaps and risks related to IT (Information Technology) & OT (Operational

Technology) and recommend necessary action plans to lessen such risks. The team continuously conducts different testing and carries out various ethical hacking exercises to identify IT problems by using a software to detect Cyber Security related issues on other systems and networks. For example, the team tries to hack into their own systems and find weaknesses so that they can place corrective actions. Furthermore, the team carries out User Awareness sessions and trainings to educate users on how to identify and deal with such threats and avoid them.

Additionally, KNPC has been certified against ISO 27001 (Information Security Management System) for the past decade and ensures all security controls within KNPC are up to compliance and standards within the IT framework. As for the OT framework, recently they have adopted IEC 62443 (ISA99) as a standard and plans are underway to ensure all OT technologies within KNPC comply with these standards. Furthermore, a Cyber Security committee consists of relevant KNPC managers headed by IT Manager was formed to discuss Cyber Security related issues and place corrective action plans. Overall, a strategic approach to KNPC Cyber Security involves coordination and support from Top Management to ensure threats/risks are immediately controlled.













# Enterprise Risk Management

G 4-2

G 4-46

G 4-50

**KNPC's** mission is to maximize the value of Kuwaiti Hydrocarbons, through domestic and international refining, petrochemical and marketing.

To achieve this, KNPC continues to be a leader in downstream activities and plays an active role in achieving KPC's overall objectives of being a prime, reliable and sustainable source of revenue and energy for the State of Kuwait by managing its risks from an oil sector perspective.

KNPC recognizes that uncertainties are inherent to achieving its mission, but efficient Enterprise Risk Management decreased the impact of negative outcomes, and helps with identifying and seizing opportunities, which will enhance value for KNPC.

KNPC ERM Mission statement declares the need to integrate enterprise risk management into KNPC's daily activities and those of its business partners to ensure the optimal balance of risk and reward whilst pursuing our objectives.

KNPC ERM Vision statement declares the need to be recognized as a leading enterprise risk management practitioner amongst oil and gas companies.

We will deliver our vision through:

- Promoting a risk management culture where risk is everyone's business from the board room to the field and plant.
- Applying leading ERM processes and systems across the business to manage our risks effectively, efficiently, and timely.
- Recruiting, developing, and deploying leading ERM practitioners.
- Deploying capital efficiently by leveraging natural risk offsets across the business using integrated risk management methods and metrics across the group.
- Balancing risk and reward consistent with KNPC

strategic objectives and planning process through aligning the Company's risk by product and business unit in accordance to the capital project.







Risk Name	Risk Description	Existing Controls	Cause Type
MAA TSD HSSE Incident Minor / Major Explosions Due to Leakages Will Lead to Fires & Consequently Causalities	(HSE Events) Minor / Major explosions due to gas or LPG leakages, Hydrocarbon spills, release of toxic gases / non-toxic gases & fumes, resulting in fires and therefore potentially leading to physical injury and / or fatal casualties in the Refinery, environmental impact, damage of properties, assets loss, interruption of production, revenue loss and reputational & negative media impact.	1. Ensure asset integrity through implementation of RBI (Risk Based Inspection) study. 2. Strict compliance to Inspection/ Maintenance/Operation standard procedures and HSE Guidelines/Best Practices. 3. Compliance to Leak Free Joint Procedures. 4. Implementing RCA Recommendations. 5. Risk assessment to be carried out for critical jobs and mitigation measures to be implemented before job execution. 6. Regularly attending HSE Training courses. 7. Implementation of Safety Audit Recommendations. 8. Provide adequate job supervision. 9. Periodic Training for employees to develop and enhance their technical knowledge and skills.	Risks Root Causes / Human / Insufficient Staff   / Risks Root Causes / Human / Not Following Procedures   / Risks Root Causes / Procedural / Poorly Applied Procedures   / Risks Root Causes / Procedural / Lack of Resources
MAA TSD High Absenteeism of Employees	Employees high absenteeism causing higher overtime, and difficult to release employees to attend the scheduled trainings, and adverse effect on the employees health and safety.	Proposed Controls: 1. Linked Share of Success to the Absenteeism 2. Monthly review of absentees 3. Quarterly rewards for prompt attendance 4. No external training for those who do not meet attendance criteria 5. Note to file for the absenteeism. 6. Counselling by HR.	Risks Root Causes / Human / Lack of Commitment   / Risks Root Causes / Human / Negligence   / Risks Root Causes / Human / Poor Morale   / Risks Root Causes / Human / Behavior
PRO CFP The Risk of Shortage of Manpower Due to Outliers	The risk of having a large shortage of manpower due to outliers leading to operational disruption, unplanned shutdowns, & asset damages	1. Continued communications between parties involved.	Risks Root Causes / Human / Behavior   / Risks Root Causes / Human / Poor Morale
SS - GSD Counterparty defaults on commitments-supplier not delivering upon terms (KNPC134)	The risk of a supplier not delivering upon agreed terms, potentially resulting in work delays, legal claims and extra costs incurred to acquire the necessary services.	1) Company's contracts have contractual provisions and remedial measures to handle such situations. In the event of such failure the services can be obtained through other contractors for which procedures are in place in the business process 2) Confiscation of Bank Guarantee and Performance Bonds in case of failure to perform. 3) Reduction from current/future invoices. 4) Measurement of contract performance. Proposed treatments are as follows: In addition to the existing control, the following are being undertaken: - Recommendation for suspension of defaulted vendors - Confiscation of BG and PB	Risks Root Causes / Procedural / Inadequate Tendering Process   / Risks Root Causes / Procedural / Lack of Resources   / Risks Root Causes / Human / Inexperienced Staff   / Risks Root Causes / Human / Lack of Trained Staff   / Risks Root Causes / Human / Human Error
SS GSD Changes in regulations, laws, guidelines and standards issued by governments and regulatory authorities	The risk of changes in regulations, laws, guidelines and standards issued by governments and regulatory authorities, potentially delaying General Service Department activities and service providing (new labor laws for recruit, transfer, deposit).	1- Close follow up and coordination in obtaining 2- Coordination meetings with other agencies to ensure they fulfill their commitments. 3- Bring up the issues to the Top Management attention.	Risks Root Causes / Human / Communication   / Risks Root Causes / Human / Lack of Commitment
MAB CFP CC Low Morale due to fear of losing the current benefits (R00658)	Employees low morale due to fear of losing the current benefits by implementing the KPC austerity measures may further lead to inefficiency and higher attrition rate.	Employees engagement through KRCM Meetings / CCD / HRD	Risks Root Causes / Human / Political   / Risks Root Causes / Human / Political Failure   / Risks Root Causes / Market / Recession   / Risks Root Causes / Market / Budget Constraints
FAA COM The Risk of Inventory Value Inflation	The risk of inventory value inflation resulting from access material order due to (over demand by users, price inflation and excessive order by purchaser) potentially resulting in access material disposal at substantial low prices	Normally all contracts are on a fixed price basis and are not subject to cost escalations (except for material supply contracts (e.g. catalyst, chemicals), which are subject to cost escalation) In case of unexpected prices changes, the impact is incorporated in KNPCs Contracts through a variation order duly signed by KNPC and contractor and approved by applicable authority as per KNPC policies. Performance Bank guarantee is required for contracts above 5,000 KD. Initial Bank Guarantee and Performance Bank Guarantee are required for contracts above 30,000 KD. Proposed treatments / Need to add Prepare 5 Year Plan and User requirements are known for 5 year period. Check Excess (Stock & D/C) and Unutilized / Reserved Materials to improve the availability of materials. Escalation / de-escalation clause in Tender documents works in both ways Enhanced Control by new organization set up.	Risks Root Causes / Procedural / Poorly Applied Procedures   / Risks Root Causes / Procedural / Inadequate Tendering Process   / Risks Root Causes / Procedural / Insufficient Project Monitoring   / Risks Root Causes / Procedural / Lack of Resources   / Risks Root Causes / Market / Inflation

# Emergency Response Plan

**The** business activities at KNPC facilities involve controlling, processing and storing large quantities of crude oil and other hazardous materials. Any emergency incident involving such materials may result in major fire, explosion, toxic or flammable gas release, and others, with potential to have serious damage to people, environment, assets, Company's business and reputation. Therefore, all KNPC facilities are designed, constructed, operated and maintained in accordance with proven international practices and standards, so that emergencies can be prevented. However, emergencies can and do occur. Emergency Response Plan provides a framework for managing emergency response in order to bring the incident under control and minimize the damages, should an emergency occurs.

There are three types of emergencies that may occur (process, medical, and security):

- Process emergency is related to fire, explosions, oil spill, and toxic gas release.
- Medical emergency is related to people injuries and sickness (not related to process injuries).
- Security emergency is related to external emergency such as bomb threat, and kidnapping.

Depending on the situation, they should all be categorized (Category 1, Category 2, Category 3) based on their level of impact or the resources needed.

There are different emergency coordination centers that are used to control the incidents depending on the incidents category. All incidents are reported to the Emergency Dispatch Centre (EDC). It is located at the fire station prepared with communication systems to easily receive and send information about an emergency. They can help by sending fire trucks, and fire crew.

A three level emergency response is activated:

## a) Category-1 Incident:

Incident Command Post (ICP) is established. ICP is a vehicle, located in a safe place near the incident scene that provides breathing tools, safety vests, and other important items to protect the employees. On Scene Command Team operates from ICP and manages the physical response to the incident.

## b) Category-2 Incident:

Emergency Operation Centre (EOC) is activated. EOC is a permanent meeting room located at each Refinery and it is equipped with appropriate communication facilities. Site Incident Management Team, headed by Incident Commander (normally the site Operations Manager). The purpose of the EOC is to provide support and strategic decisions to the on scene Command, and keeping KNPC Top Management and the public updated.

## c) Category-3 Incident:

Crisis Management Centre (CMC), located at Head Office Building is activated, where KNPC Crisis Management Team (CEO, DCEOs and selected Managers) gather at CMC to analyze and undertake studies so that the organization can continue to operate in case of serious incidents or disasters, take strategic decisions, manage external communications with media, the public, and relatives.

After each incident, a detailed analysis is carried out, lessons learnt are listed and shared to try to prevent emergencies in the future.





Category	Example	Impact	Resources
Minor	Light smoke	limited	Resources available at the affected location only Standby: One fire crew
Category 1	Fire involving single equipment or part of a unit	Within the unit/area	Affected site resources Standby: One fire crew from other unaffected refineries
Category 2	Serious gas release difficult to control requiring unit shut-down	Within KNPC site boundary	Additional assistance from other unaffected KNPC refineries Standby: KFSD fire crews (2)
Category 3	Explosion resulting in serious effects on lives, environment, and properties beyond the site boundary	Outside KNPC site boundary	Additional assistance from other unaffected KNPC refineries KNPC fire crews KFSD fire crews external support (other K-companies, army, etc)



# Shuaiba G4-13 Retirement

## Pre-Closure

**Shuaiba** Refinery, KNPC's first own Refinery, was built in April 1968 with production capacity of 95,000 Barrels Per Day (bpd). It was the third major Refinery built in the State of Kuwait and its capacity 195,000 bpd accounted for 20% of the Company's refining capacity after it was revamped in 1975. It is also the World's first all hydrogen Refinery with full usage of Hydrogen Gas Manufactured from natural gas in Process Units and is capable of handling relatively high Sulphur crude oils.

Products of the Refinery in the 2015/2016 fiscal year:

Product	Ton per day
Rich gas for LPG plant	298
Naphtha	3546
Mogas / Reformat	616
Kerosene/ATK	4188
Gas oil / Diesel	5136
Fuel oil / Residue	7425
Other products	380

## Closure-Ceremony

Like most major industries, the oil industry is in constant development due to never-ending research and technological studies. It is well known that modern researches in the industry are mainly conducted towards achieving an utmost cost-efficient and environment friendly machines that would comply with world oil demand standards and regulations. As such change needed, limited space for improvements and changes in Shuaiba Refinery resulted in a decision to the Refinery closure. In March 2017, Shuaiba Refinery during a ceremony as a way to express gratitude and appreciation of the 49 years

of operation for all involved workers, employees, and the Management, had its closure chapter in Kuwait's Refining industry.

## Post-Closure

At the meantime, Shuaiba Refinery is used as a storage for both of Mina Abdullah and Mina Al-Ahmadi Refineries. Export facilities will also be used to serve CFP in MAB. Active employees of the closed Refinery are in a plan to be assigned new positions in the other Refineries.

Closure of the Refinery has no effect on local demands as supplies from MAA and MAB will be able to cover all domestic needs. SHU closure would have a positive impact on KNPC by ending its 5-year streak of financial losses since 2011/2012 fiscal year, which amounted \$892 million.







With the retirement of KNPC's Shuaiba Refinery, the outcome of this will be the integration of the KNPC refining system into one merchant refining complex with full conversion operation with highest light ends products that yields and minimum fuel oil production. The Company still operates two domestic Refineries Mina Al Ahmadi (MAA) and Mina Abdullah (MAB), both located in South of Kuwait.

Both MAA & MAB are undergoing major upgrades and enhancements as part of the Company's mega project the Clean Fuel Project. In addition to advanced conversion capabilities, MAA & MAB operational excellence, reliability and safety performance will be greatly upgraded. Energy efficiency and environment production will also be greatly enhanced. Its clean products will conform to the specifications set by the Euro 4 & Euro 5 to reduce KNPC environmental impact significantly.



*"From a social and management point of view, it was known that Shuaiba works on an open-door policy, and to be honest there was harmony so surprising for outsiders. There was a great harmony between employees, in that there were no levels of differentiation and it was easy for the employee to engage with his bosses, from the lowest to the DCEO of the Refinery at that time. Social relations were very special, and it was first thing to be noticed by people from outside the Refinery or whom wanted to join Shuaiba throughout the years. I can confirm to you that this is not available in any other site but Shuaiba and the people who worked there had sustained this culture."*

*In the early years of Shuaiba Refinery, Mr. Husain added, safety records were not very good, but going forward and through adapting and developing new systems, safety had excelled and since then Shuaiba Refinery scored the highest (96.1) in risk ranking.*



**Husain Al-Jedi**  
Team Leader Contract Kuwaitization











“Clean Fuel Project is one of the largest development projects in Kuwait that is expected to fuel the national economy. Full preparations are under-going for commissioning including the proper training of KNPC skilled staff expected to support this Mega Project.”



**Abdulla Fahhad Al-Ajmi**  
Deputy CEO for Projects





# Clean Fuel Project G4 - 4

## CFP Strategic Objective

**Upgrade** KNPC existing aging Refineries to:

- An integrated refining complex to meet diversified markets.
- Meet 2020 demand and specifications for local and international markets (Euro 4).
- Enhance environmental and safety performance.
- Cleaner and more efficient operation using improved technologies.
- Minimize emissions – improve environment.
- Higher value, less polluting products, <10 ppm Sulphur.
- Provide employment opportunities for Kuwaitis in refining.

## The Way Forward for CFP

By the next Sustainability Report, CFP aims to have completed its commissioning and its performance guarantees, thus providing Mina Abdulla and Mina Al-Ahmadi Refineries with the capability to produce low-Sulphur fuels.

On top of upgrading/expanding the Refineries, CFP shall also integrate the refining system into one complex with full conversion operation.

Furthermore, by revamping and adding additional units, CFP will replace the production of the Shuaiba Refinery which is being shut down.

By doing so, CFP aims to meet the growing demands of the local and international market, for cleaner and more sustainable fuels.

This is especially necessary in face of the new pollution standards for fuels to be implemented in Europe and elsewhere and shall maintain Kuwait's competitive edge in the sector.

Finally, we hope that the above achievements will set KNPC apart as an industry leader in terms of the production of quality fuels.







## Environmental Projects for CFP

- All National Kuwait Environmental Public Authority (EPA-Kuwait) standards are met and audited against during Construction phase.
- Best Available Control Technologies (BACT) used in CFP Project.
- All heaters in project have Ultra Low NOx burners.
- H<sub>2</sub>S content set to <100PPM.
- MAB : SO<sub>x</sub> designed for 150PPM vs. EPA-Kuwait of 250 PPM.
- MAA: SO<sub>x</sub> designed for 150 to 250 PPM vs. EPA-Kuwait of 250 PPM.
- High Sulphur unit recovery. Low Sulphur products.
- Quarterly compliance audits compiled and sent to EPA-Kuwait for review and comments.
- State of the art waste water treatment facility, with expected zero discharge to Gulf.

## Community Awareness of CFP

- Noise monitoring assessments.
- Environmental Impact Assessment completed for whole project.
- Traffic Impact Assessment completed prior to construction.
- Environmental and Social Management Plan for construction phase of CFP.
- Social Media awareness campaigns on CFP.
- Engagement with several stakeholders such as Chalets owners, Embassies & Ministries.

- **PMC contract awarded December 2012**
- **Main EPC Contracts awarded April 2014**



KNPC honored the Ministries and Government authorities involved in our national project: The CFP. This project will propel the oil sector and boost Kuwait economy through adding value to our nation's hydrocarbon resources.

Due to the project huge size, a wide mixture of government bodies patriated in a joint effort to facilitate numerous logistic, administrative, services and other difficulties.

CFP contains widely ramified necessitates, which need the support and services of government sectors. The infrastructure, roads, services and other jobs, which include the completion of residence documents for over 45,000 contractor employees, were completed. These efforts reflect the importance given to the project with a high sense of responsibility.

The Ministries and government authorities spared no effort in smoothing up the transactions and, in fact, gave several initiatives to push the work forward. They vigorously eased the procedures, speeded up the CFP work and played a key role in the already completed 84% of the project so far. We are moving fast in the commissioning of the project in 2018. In this occasion, KNPC would like to underline that the success of CFP is not only for KNPC, but also for the whole of Kuwait, the Ministries, Government authorities and partner companies. It is the source of pride for everyone involved in the nationwide ambition. This fruitful joint effort mirrors the one-team spirit and close cooperation among all parties concerned.

KNPC has created a grievance mechanism beneficial to contractors on site. The main priority of this mechanism is to ensure that all contractors on our site have a connection with KNPC Management.

Employee Grievance Form		تفاصيل الموظف	
<b>Employee Details</b>			
Name (Optional) (اختياري) الاسم (اختياري)	Designation: الوظيفة مدير		
Company: الشركة مؤسسة	EPC Contractor: شركة العقد الرئيسي مؤسسة		
Site: الموقع الساكن	<input type="checkbox"/> MAA Refinery <input type="checkbox"/> MAA Greenfield <input type="checkbox"/> MAB Refinery <input type="checkbox"/> MAB Greenfield <input type="checkbox"/> SHU Refinery <input type="checkbox"/> JGSK Laydown <input type="checkbox"/> FDH Laydown <input type="checkbox"/> PSCJ Laydown <input type="checkbox"/> Fabrication Shop for : _____		
Accommodation Address: عنوان السكن أعوانا كا بيتا			
Mobile No. رقم الهاتف موبايل نंबर	Email ID: البريد الإلكتروني إيميل	Emp. No.: (Optional) الرقم الوظيفي (اختياري) كلمة كاري आईडी (اختياري)	
Grievance reported to your Company? (إذا كانت الإجابة بنعم - يرجى كتابة التفاصيل في الحقل الأسفل) هل توجد لديك أي شكوى على شركتك شكوايت आपकी कंपनी को दी गई है			
<input type="checkbox"/> YES <input type="checkbox"/> No (If yes, please provide details below) <input type="checkbox"/> हाँ <input type="checkbox"/> नहीं (अगर हाँ, तो नीचे विवरण प्रदान करें)			
Date of Reporting Grievance to Company تاريخ رفع الشكاوى للشركة कंपनी को शिकायत सूचित करने की तारीख	Feedback Received from Company? رد الشركة على الشكاوى क्या कंपनी ने समाधान प्रदान किया		
<input type="checkbox"/> हाँ <input type="checkbox"/> नहीं Was the Feedback Satisfactory: <input type="checkbox"/> YES <input type="checkbox"/> No هل كانت ردة فعل الشركة مرضية <input type="checkbox"/> نعم <input type="checkbox"/> لا समाधान स्वीकार्य था <input type="checkbox"/> हाँ <input type="checkbox"/> नहीं	<input type="checkbox"/> YES <input type="checkbox"/> No Does the Grievance repeated again? هل تكررت الشكاوى مرة أخرى <input type="checkbox"/> نعم <input type="checkbox"/> لا शिकायत फिर से दोहराया? <input type="checkbox"/> हाँ <input type="checkbox"/> नहीं		
<b>Grievance Type</b>			
<input type="checkbox"/> SALARY <input type="checkbox"/> الراتب <input type="checkbox"/> वेतन	<input type="checkbox"/> FOOD <input type="checkbox"/> الطعام <input type="checkbox"/> भोजन	<input type="checkbox"/> ACCOMMODATION <input type="checkbox"/> السكن <input type="checkbox"/> आवास	<input type="checkbox"/> OVER TIME <input type="checkbox"/> الوقت الإضافي <input type="checkbox"/> अतिरिक्त भुगतान
<input type="checkbox"/> PASSPORT <input type="checkbox"/> جواز السفر <input type="checkbox"/> पासपोर्ट	<input type="checkbox"/> WORKING HOURS <input type="checkbox"/> ساعات العمل <input type="checkbox"/> काम करने के घंटे	<input type="checkbox"/> TRANSPORTATION <input type="checkbox"/> وسائل النقل <input type="checkbox"/> परिवहन	<input type="checkbox"/> CLINIC <input type="checkbox"/> العيادة الطبية <input type="checkbox"/> दवाखाना
<input type="checkbox"/> LEAVE <input type="checkbox"/> الإجازة <input type="checkbox"/> छुट्टी			
<input type="checkbox"/> OTHERS <input type="checkbox"/> شكاوى الأخرى <input type="checkbox"/> अन्य			







In a milestone success in the history of KNPC and Kuwait oil sector, we secured CFP financing deal, when we obtained KD 1.2 Billion from the local banks and US \$6.245 Billion from international credit agencies.

KNPC team worked meticulously to secure the loan from a number of Export Credit Agency's (ECA) from the Netherlands, Korea, Japan, Italy and the United Kingdom. Under ECA cover, 11 well reputed international entities were appointed as Mandated Lead Arrangers.

To fulfill the requirements from the international lenders, KNPC conducted the following practices:

- Created a Social Impact Assessment (SIA) report in association with a 3rd party. This assessment report was an inclusive report of the surrounding areas of CFP as well as the national study concerning health and safety laws and regulations.
- Created a Qualitative Risk Assessment (QRA) report in association with a 3rd party. This assessment reviewed the technical aspect of the CFP project and the risk it would add to the surrounding communities.

KNPC CFP Financing Committee consisting of Corporate Communication, Health, Safety & Environment and Clean Fuel Project team created the Environmental and Social Management Plan (ESMP). They took the findings of both the SIA and QRA and created such a Plan. This is a 10 year commitment covering the aspects of enhancing environmental performance and social responsibility to the Company's stakeholders.



# Clean Fuel Project Packages



## MAB-1 Package (CFP-B/EPC-0025)

**New** main process units including Crude Distillation Unit, Atmospheric, Residue Desulphurization, Vacuum Residue Unit, 2 No Hydrocrackers, Kero Hydrotreater, 2 No Diesel Hydrotreaters, Naphtha Hydrotreater, Continuous Catalytic Reformer.

- **Shuaiba Refinery.**
- **Utility Area.**

Loading pumps, Inter Refinery Transfer (IRT) pumps, Transfer pumps.

## MAA Package (CFP- A/EPC-0030)

New main process units including Isomerisation Unit, LPG Treating, Delayed Coker, Delayed Coker Naphtha Unit, De-Iso-Pentaniser, IC5 Merox Unit, Atmospheric Residue Desulphurization, Gasoil Desulphurization, De-Iso-Butaniser, Hydrogen Production Unit, Hydrogen Sulphide Removal Units, Sulphur Recovery, Sour Water Treatment, Vacuum Rerun Unit, FCC Naphtha Hydrotreater. Revamp Units including Continuous Catalytic Reformers, Alkylation, Vacuum Rerun Unit.

## MAB-2 Package (CFP-B/EPC-0027)

New process units including Hydrogen Recover, Hydrogen Plant, Sulphur Recovery, Amine Regeneration, Sour Water Stripper, HPU Feed Gas Compressor, Hydrogen Compression.

Revamp units: Crude Distillation Unit, Vacuum Rerun Unit Trains 1 & 2.

U&O including Steam, Cooling Water, Nitrogen, Air.

Buildings including Main Office Buildings, Warehouses, Maintenance Building, Laboratories and Main Automation Works.







## FCC and Associated Units at MAA

New FCC Sour Water Treated, Cooling Tower. Revamp of FCC Unit, including new FCC Reactor and Auxiliary Blower, and distillation column modifications.



## High Voltage Works (CFP-B/EPC-0019)

132Kv substation at MAA and associated transformers & switchgear.

300/132 Kv substation at MAB and associated transformers and switchgear.

168 KM of underground 300Kv cabling within MAA, MAB and connecting the two Refineries plus tie-in to the Kuwaiti national 'loop'.

- *Custody Transfer Meter Skids and Shuaiba Pier modifications including new slops tanks and pumps.*
- *Tankage & Other Equipment including new floating roofs in existing fixed roof tanks, heat exchangers.*
- *Inter Refinery Transfer Lines.*

## Preparatory Works at MAA/MAB Refineries (CFP-B/EPC-0027)

Construction Infrastructure.

Early Works (Underground Pipes, site grading, fencing etc).

PMT Building.

## MAA Package (CFP-A/EPC-0030)

Tie-in Units.

U&O including new tanks for petrochemical naphtha and Isomerate, and new spheres for Isopentane.

Buildings including Main Office Buildings, Warehouses and Maintenance.



# Environment G4-EN24

**The** Company cannot expect to eliminate all operational risks, but through a control framework and by monitoring and responding to potential risks, the Company is able to manage the risks. Controls include effective segregation of duties, access, authorization and reconciliation procedures, staff education and assessment processes.

Management has implemented health and safety policies and procedures in addition to an adequate insurance coverage to mitigate operational risks.

## Oil Spills

### Chemical Spills: NIL

Spills that were reported in the organization’s financial statement: NIL

### Impacts of Significant Spills

Hydrocarbon and Chemical Spills on Land: Soil/ Land contamination.

Hydrocarbon and Chemical Spills in Water: Marine Pollution.

The following table represents the oil spills on site at KNPC. These incidences have been recorded by volume as well as number of separate cases if oils spills. It is important to note that following any case of an oil or chemical spill there is an investigative committee and report is completed and reported to Management of KNPC.







Site	Recordable Spills – Hydrocarbon		Recordable Spills – Chemicals	
	Number of Spills	Volume of Spills (Barrels)	Number of Spills	Volume of Spills (Barrels)
Mina Al-Ahmadi Refinery (MAA)	0	0	0	0
Mina Abdullah Refinery (MAB)	6	65	0	0
Shuaiba Refinery (SHU)	1	15	0	0
Local Marketing (LM)	2	6.25	0	0
<b>TOTAL</b>	<b>9</b>	<b>86.25</b>	<b>0</b>	<b>0</b>

Sr. No.	Date	Refinery/ Location	IIRS No.	Type (Land/ Marine)	Approx. Volume of Spill	Description of Incident
1	07-Aug-16	SHU Operations Area - 3	SHU-OPRINC-16-0012	Land	15	Crude leak observed from LN 34-31 in concrete open trench near cooling tower CT#64.
2	04-Sep-16	MAB Operations Area - 6	MAB OPRINC-16-0031	Land	10	While Fuel Oil transfer from IRT Pump House to SHU & MAA Refinery was on, pump P 51-103 bypass line developed pin hole leak resulting into spillage of Fuel Oil.
3	06-Oct-16	MAB Operations Area - 6	MAB-OPRINC-16-0040	Land	31	During routine draining, field operator identified slop oil mixed with water over flowed from the water rain line of TK-50-160 due to the drain line chock.
4	29-Oct-16	LM - Filling Stations	HOF-LMDINC-16-0003	Land	3.125	While filling Diesel product in tank of mobile filling station by road tanker, 500 Liters of the product overflowed from the tank.
5	03-Nov-16	MAB Operations Area - 2	MAB-OPRINC-16-0047	Land	5	During RCD unit bottom line to vacuum unit cold cutting, Low Sulphur Residue Oil leaked from the cold cut.
6	12-Dec-16	LM - Filling Stations	HOF-LMDINC-17-0001	Land	3.125	During unloading of Gasoline (Premium) product in Premium Tank, approx. 500 litre of the product leaked from the unloading point.
7	06-Feb-17	MAB Operations Area - 6	MAB OPRINC-17-0003	Land	12	CRB started over flowing due to high level and heavy rain and Oily effluent from CRB went into sea.
8	16-Mar-17	MAB Operations Area - 6	MAB-OPRINC-17-0009	Land	3	A spill was found under the header of TK-52-159 in pipe rack.

**TOTAL** **86.25**  
**Barrels**

# Flare Gas Recovery Unit G4-EN3 G4-EN15 Environment

## Flare Gas Recovery Unit at Shuaiba Refinery

**Refineries** are provided with Relief Gas Network with discharge to flare stacks. The Relief Gas Network gathers gases released from various equipment through control valves, safety valves and other manual connections. These gases are discharged to atmosphere after burning at the tip of the flares.

At KNPC Shuaiba Refinery, Flare Gas Recovery Unit (FGRU) is operational since January 2002. Approx. 84% of Flare Gases were recovered at FGRU during the reporting period April-2016 to March-2017. Recovered flare gases were treated and supplied as Fuel Gas within Shuaiba Refinery to minimize flaring and fuel gas consumption.

Voluntary Greenhouse Gas emissions reductions achieved during the reporting period as a direct result of the initiative(s) in tonnes of CO<sub>2</sub> equivalent at Shuaiba Refinery are featured in the following page.

## Flare Gas Recovery Unit at Mina Al-Ahmadi Refinery

MAA-FGRU is the first Clean Development Mechanism (CDM) project registered from Kuwait under United Nations Frame Work Convention on Climate Change (UNFCCC). The project symbolizes participation of Kuwait in global efforts to address climate change concerns. The purpose of the project activity is to recover the gases in order to minimize flaring from the Risk Management Plan (RMP) and Further Upgrading Project (FUP) Flare systems.

Greenhouse gas emissions reductions achieved from the RMP and FUP Flare systems during the reporting period as a direct result of the initiative(s) in tonnes of CO<sub>2</sub> equivalent at Mina Al-Ahmadi Refinery are featured in the following page.

During refining operations, Carbon Dioxide and

other Green House Gases (GHG) are produced. Since GHG emissions are the main cause of climate change, KNPC is introducing Flare Gas Recovery Unit (FGRU) at Mina Abdullah Refinery (MAB).

MAB-FGRU is the second Clean Development Mechanism (CDM) project registered from Kuwait under United Nations Frame Work Convention on Climate Change (UNFCCC). The purpose of the MAB-FGRS project is to recover the gases that are currently flared at the expansion units of MAB Refinery. The proposed project involves the installation of a Flare Gas Recovery System (FGRS) that would recover gases currently being flared from Refinery expansion units to the flare system.







Month	Total Flare Gas to FGRU (Recovered) (tonnes CO2-eq)	Quantity Flared to Atmosphere from SHU Refinery (tonnes CO2-eq)	Total Refinery Flare Gas (tonnes CO2-eq)
Apr-16	6280	1338	7619
May-16	5451	1234	6685
Jun-16	5261	1551	6811
Jul-16	7046	1188	8235
Aug-16	11866	1634	13500
Sep-16	10604	1928	12532
Oct-16	7601	1696	9298
Nov-16	3960	1069	5029
Dec-16	4544	1022	5565
Jan-17	3596	821	4417
Feb-17	3454	794	4248
Mar-17	3774	1457	5231
TOTAL	73437	15732	89170

Total Flare Gas (tonnes CO2-eq)	89170
Quantity Recovered at FGRU (tonnes CO2-eq)	73437
% of Gas Recovered <sup>1</sup>	82.36

Month	Total Flare Gas Recovered at NFGRU (tonnes CO2-eq)	Quantity Flared to Atmosphere from MAA Refinery (tonnes CO2-eq)	Total Flare Gas from MAA Refinery (tonnes CO2-eq)
Apr-16	5317	14603	19920
May-16	1890	7057	8947
Jun-16	2871	10425	13296
Jul-16	3347	11186	14534
Aug-16	3085	9644	12729
Sep-16	4164	11881	16045
Oct-16	4110	9880	13990
Nov-16	4058	10756	14814
Dec-16	3712	10656	14368
Jan-17	3097	7621	10718
Feb-17	2609	6165	8774
Mar-17	3427	6394	9821
TOTAL	41689	116268	157956

Total Flare Gas from RMP & FUP (tonnes CO2-eq)	157956
Quantity Recovered at NFGRU (tonnes CO2-eq)	41689
% of Gas Recovered <sup>1</sup>	26.39



## Compilation

Methodologies used to calculate the amount of Green House Gas (GHG) Emissions:

KPC Greenhouse Gas Accounting and Reporting Guidelines used to calculate GHG emissions. The Guidelines are based on relevant international and industry specific standards and protocols. This Document is in draft stage. GHG emissions are calculated through a third party Consultancy model GHG data collection tool based on input data received from various departments.

## Documentation Collected Include:


### Shuaiba Refinery

- FG Consumption and Venting from H2 Unit.
- FG Composition.
- Flare Gas Quantity.
- Flare Gas Composition.
- Liquid Fuel Consumption.
- HFCs.
- Fugitives.

### Mina Al-Ahmadi Refinery:

- FG Consumption and Venting from FCCU & H2 Unit.
- FG Composition.
- Flare Gas Quantity.
- Flare Gas Composition.
- Liquid Fuel Consumption:
  - Diesel.
  - Petrol.
- HFCs.
- Fugitives.

### Mina Abudllah Refinery

- FG Consumption and Venting from H2 Unit.
  - FG Composition.
  - Flare Gas Quantity.
  - Flare Gas Composition.
  - Liquid Fuel Consumption.
  - HFCs.
  - Fugitives.
- 





Sources of GHG Emissions	GHG emissions (tonnes CO <sub>2</sub> -eq)					
	MAA	MAB	SHU	LM	HO + Wataniya Club	Total
Direct emissions (Scope 1 emissions)	4153545	2078009	2436576	596	0	8668725
Total GHG emissions from Fuel Gas consumption	3107309	1542189	1921159	0	0	6570657
Total GHG emissions from Gas Flaring	116268	66623	15732	0	0	198623
Total GHG emissions from venting	912396	424231	497220	0	0	1833847
Total GHG emissions from liquid fuel consumption	3765	43734	1929	596	0	50023
Total GHG emissions from HFCs consumption	11977	711	183	0	0	12871
Total GHG emissions from fugitive Gas emissions	1830	520	353	0	0	2704

Title	Size
CO2 Venting - SHU	7.1 MB
External Refrigerant Consumption	59KB
Fuel Gas Report - SHU	3.2MB
Liquid Fuel Consumption- MAA	389.3KB

#### Head Office + Wataniya Club:

- Not Applicable

➤ Total makeup of Fuel Gas Balance is 1786MMSCF

➤ Total CO2 Venting is 40516.4













# Projects

G4-EN8

G4-EN10

G4-EN19

G4-EN30

**KNPC** is making great efforts to meet the requirements of local and international markets in order to promote its high-quality petroleum products compatible with international standards.

## Vapor Recovery Unit

Source 1- Minimize emissions, discharges and waste generation to environment and commit to prevention of pollution.

Vapor recovery is the process of recovering the vapors of gasoline or other fuels, so that it does not escape into the atmosphere and affect the environment. This is often done at filling stations and depots in order to reduce toxic and pollution. Vapor recovery units are also becoming commonly used in the oil and gas industry as they can generate more money by recovering natural gas vapor and making more usable and profitable products with increased gas to sell.

In order to eliminate HC vapors sneaking into the atmosphere while loading / unloading or transfer operation and in line with KNPC's HSE Policy to run the business to safeguard health of our employees and minimize environmental emissions, KNPC-Local Marketing implemented Project for Vapour Recovery Unit (VRU) at Sabhan & Ahmadi Depots for Gasoline products. Since inception of VRU in 2008, total 34 million liters of vapor are recovered from both Depots (Sabhan and Ahmadi) which is around KD 2 million.

- The Stage IA Vapor Recovery Unit (VRU) with activated Carbon bed absorption technology from Jordan Technologies, USA is designed to recover the hydrocarbon vapors brought to Depots from petrol filling stations via road tankers in addition to the vapors produced during tanker loading operation.

- The Stage IB Vapor Recovery System is a product and vapor handling process designed to control vapors during the transfer of gasoline from road tankers to petrol filling stations

- As fuel enters the UST during unloading operation, vapors are returned to the tanker via a separate vapor hose connection to eliminate vapor loss through the vent in to the environment.

- The Stage IB Vapor Recovery System is installed at all KNPC and private fuel companies' petrol filling stations in the State of Kuwait.

- The Stage 2 Enhanced Vapor Recovery System (EVR) is a vacuum assisted system that collects gasoline vapor emitted during refueling of automobile and returns it back to the UST.

- The stage 2 Vapor Recovery System is now installed in Dhahia Abdullah Al Salem Filling Station, and are still working in other areas in Kuwait.

VR System	Process	Location
VRU Stage IA	During tanker loading operation	Depots ( Sabhan, MAA)
VRU Stage IB	During Tanker unloading to UST	Filling Stations
Enhanced VR Stage II	During vehicle refueling	Filling Stations





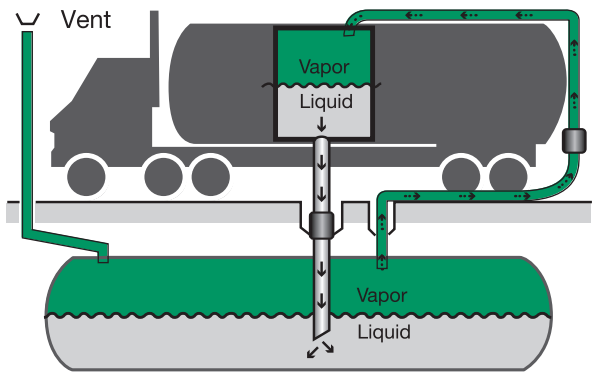


Fig. 1 - Stage-Ib)

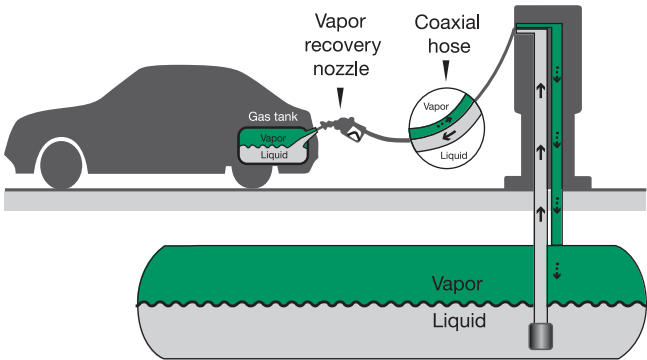


Fig. 2 - Stage II



## Fifth Gas Train

Fifth Gas Train Project is the third largest project of the Company after Al-Zour (ZOR) and CFP. The Fifth Gas Project is a huge project for the Company, which is the construction of a new unit at the Mina Al Ahmadi Refinery for processing natural gas produced from the fields of the associate Kuwait Oil Company (KOC), with a total value of 433 million Kuwaiti Dinars and 45 months project schedule. (KNPC) awarded Tecnicas Reunidas the execution of the Fifth Gas Train Project, one of the main international engineering and construction companies in the sectors of production of Oil and Gas, petrochemical and power generation for a wide range of clients worldwide.

Gas liquefaction units and gas derivatives are among the most profitable products for the Company. Therefore, the operation of the Fifth Gas liquefaction unit is in line with the Company's plan to expand profitable products in accordance with the global market demand. This project will increase the employment opportunities for Kuwaiti citizens as well. The control systems used in this project are one of the most advanced systems in the world where they do their job with less space and less cost.

Upon completion in July 2019, the Fifth Gas Train will be able to produce 805 million cubic feet a day of Gas and 106,000 barrels a day of NGL condensate. The Company has four gas liquefaction units at the Mina Al Ahmadi Refinery with a total production capacity of 2320 million standard cubic feet of gas and 226,000 barrels of condensate. The total capacity of the unit after the operation of the fifth unit is 3125 million standard cubic feet of gas and 332 thousand barrels of condensate. In addition to the four gas units used before, this one aims to produce clean fuel oil that follows the Environmental Protection Agency specifications after reducing the toxic hydrogen sulphide from 2400 ppm to only 50 ppm that will increase the level of safety. The project aims to

increase the Country's production of liquefied gas to meet the growing domestic demand, to operate power plants used for electrical power, and to export to other markets. The produced light methane will be used in power stations, propane and butane will be supplied for domestic use and ethane will be supplied as a feedstock for olefins factories. Propane, butane and pentane will be exported.







## Integrated Management System (IMS)

IMS is an organizational management system where processes, documentation, and structures of multiple management structures are unified into one standard system to guide the organization towards achieving its goals.

## Implementation

At KNPC, IMS is implemented to integrate three management systems OHSAS 18001, ISO 9001 & ISO 14001.

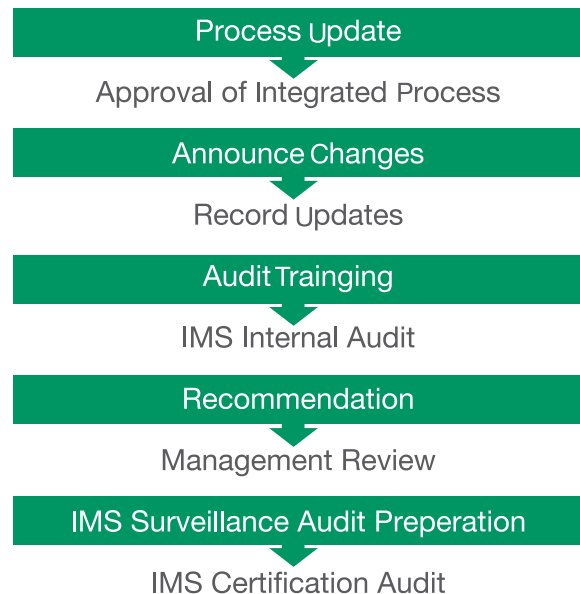
- ISO 14001 (Environmental Management System).
- OHSAS 18001:2007 (Occupational Health & Safety Assessment Series).
- ISO 9001:2008 (Quality Management System Phase II Certification).

## Expanded IMS Project Objectives:

- 1- Merge ISO 9001-QMS with the two current systems OHSAS 18001 and ISO 14001.
- 2- Update ISO 14001 to 2015 standards.

## Benefits of IMS at KNPC

- Reduced internal audits.
- Less time spent on dealing with administrative matters.
- Manager and Team Leader responsibilities can be efficiently managed through one system.
- Easier for employees to understand.
- Single point of reference for all stakeholders Contract award.



## Waste Water Management

Oil refining processes in KNPC Refineries are operated under specific environmental requirements set by Kuwait Environmental Public Authority (KEPA). Effluent Treatment Facility (ETF) are installed in 2 Refineries as a part of KNPC's Odor Management System (OMS) and as per KEPA requirement ETF were revamped to meet the imposed standards. ETFs are water treatment systems installed in the refineries to process liquid wastes before being discharged into the sea.

The Wastewater Treatment Unit (Unit-63) is designed to process waste water for Refinery Modernization Project (RMP) and Further Upgrading Project (FUP) at Mina Al-Ahmadi Refinery executed by Kuwait National Petroleum Company. The unit is designed for treatment of effluents from a group of RMP and FUP areas, including tankage area and utility area. Effluents from areas where existing facilities, systems and equipment are to be modified or from areas where future expansion is planned, are outside the scope of this design basis. The unit consists of Oil Pits, CPI separators, Aerated Lagoons, Guard Basins for RMP and FUP, Tanks etc. along with necessary utility system.

Aside from ETF MAA Refinery include the following liquid waste treatment systems:

- Oily Water System.
- Semi Oily Water System.
- Stripped Sour Water.
- Spent Caustic System.
- MTBE Contaminated Water System.







No.	Quality Parameter	Discharge Standards
1	Oil & Grease	<10 ppm
2	Floatable	NIL
3	TSS	<10 ppm
4	BOD (5 DAYS @ 20 DEG C)	<30 ppm
5	COD	<200 ppm
6	Sulfides	<0.5 ppm
7	Phenol	<1 ppm
8	Phosphate	<2.0 ppm*
9	Cyanide	<0.1 ppm
10	Total Kjeldahl Nitrogen (TKN)	<5 ppm
11	NH <sub>3</sub> -N (As Ammonia)	<3 ppm
12	No <sub>3</sub> -N (Nitrate)	<30 ppm
13	Total N	<30 ppm
14	Dissolved Oxygen	>2ppm
15	pH	6-8
16	Turbidity	<50 NTU





## MAB – Unit-37

The function of the water treatment systems is to produce utility water, potable water, low pressure BFW (Demineralized water) and high pressure boiler feed water (polished water). These systems also process recovered condensate for re-use in the Refinery. This unit receives 98% Sulphuric acid and 50% caustic soda from outside source and prepares 18% caustic for use throughout the Refinery. Unit-37 consists of the following systems:

1. Utility Water System.
2. Potable and Irrigation Water System.
3. Demineralization System.
4. Condensate Polishing System.
5. Neutralization System.

## Waste Water

The CFP development will require large volumes of water for cooling tower, boiler feedwater (BFW) make-up, process water, potable water, sanitation and other Refinery services. KNPC plan for as much of the CFP's water demand to be met by waste water recycling and reuse as possible.

There will be two new Waste Water Treatment (WWT) Systems provided as part of CFP:

- New Waste Water Treatment System at MAB– Unit 156.
- New Waste Water Treatment System at MAA– Unit 163.

Overall, it is concluded that the planned new CFP waste water collection and treatment facilities are state of the art, and constitute best practice and apply a considerable number of Best available Control Technology (BACT elements). The CFP waste water facilities will be designed, built and operated in such a way as to meet best practice





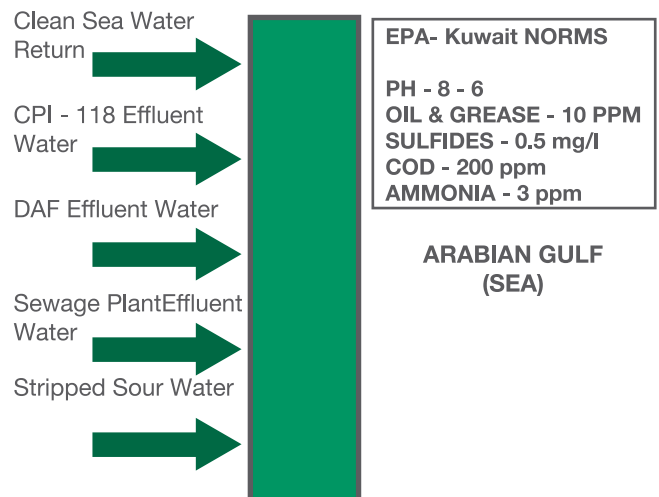


and the applicable EPA-Kuwait environmental criteria.

In order to enhance the robust approach to addressing and mitigating environmental impacts during the CFP's construction and subsequent operations, this study makes the following additional recommendations:

- The waste water discharge monitoring results should be audited by an independent party on a regular basis.
- The waste water, storm water and sanitary waste water collection / treatment facilities should be made available at the earliest stage possible during construction, and it is recommended that each EPC contractor make this an early priority for the CFP construction.

### MIXING BASIN



## MAB Waste Water Facility (WWF) General Description

Waste Water Distribution to Effluent Treating Facilities (ETF)

Old Refinery Oily Water DX/DP

Tank Farm Oily Water DX

De-salters Effluent Water

New Process Unit Oily Water DX

Rain and Floor Washing Water

Chemical Sewer DK

CPI-104 Separator

CPI-103 Separator

CPI-101 Separator

CPI-102 Separator

Waste Retention Basins

Neutralizing Basin



## Sulphur

In order to accommodate these changes, the company launched in the last few years a number of major projects to upgrade its Refineries and increase its production capacities. One of these projects is constructing new Sulphur Handling Facilities and Revamping the existing Sulphur Facilities at Mina Al Ahmadi Refinery.

The project consists of four liquid Sulphur storage tanks with a total capacity of 18,800 Metric Tons, and 5 Sulphur Granulation units with a production

capacity of 5,000 Metric tons per day. In addition, a new solid Sulphur storage with a capacity of 145,000 tons and a separate solid Sulphur pier for 60,000 tons will be built. As well, the existing facilities will undergo a major revamping to improve and enhance its performance accordingly.

The new Sulphur handling facilities project has been successfully commissioned and now in full operation.







**Longitude Sulphur Tank**



## Gas Liquefaction

Gas Liquefaction industry is a major activity of KNPC. It is the process by which gas is converted to liquid. The Company has a Liquefaction Plant at MAA with 4 trains with 2,458 billion Standard Cubic Feet Per Day (SCFPD) of production capacity. Gas has several environmental and economic benefits, such as the reduction of emissions of Sox, NOx and CO2. Crude oil, gasoil and fuel oil are also saved. Gas is naturally produced and monitored by Kuwait Oil Company (KOC) and Kuwait Gulf Oil Company (KGOC).

It is then sent to Gathering Centers before it is sent to Liquefied Natural Gas (LNG) Liquefaction Plant at MAA. Other amounts of gas are produced in KNPC Refineries.

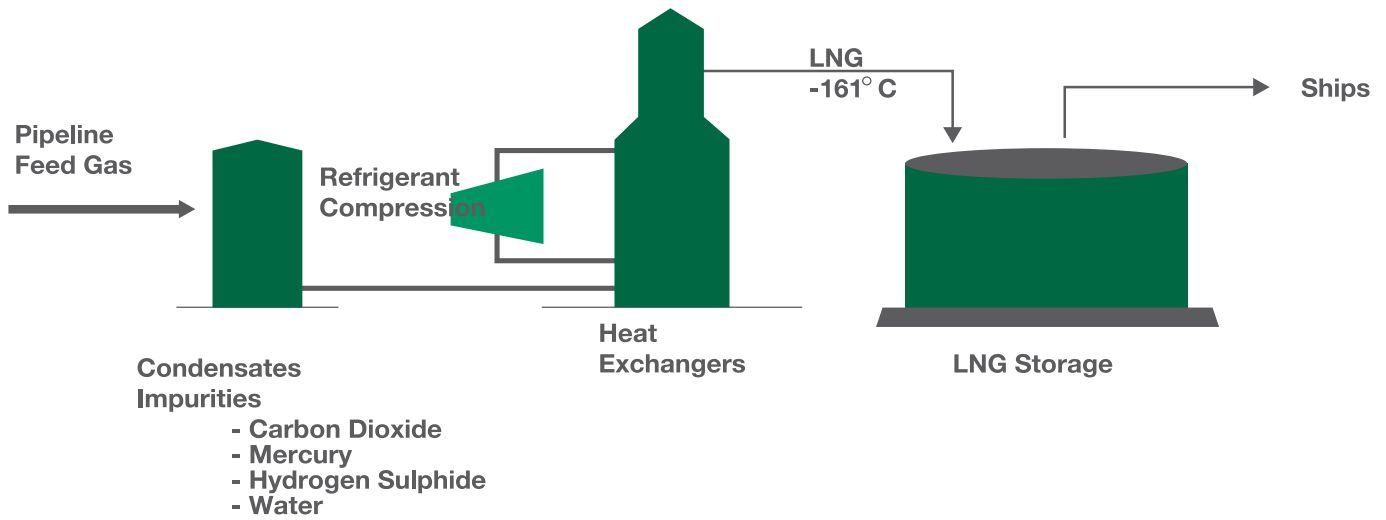
This plant, inaugurated in 1978, has 4 production trains to extract Propane, Butane and Gasoline. Following KPC strategy, KNPC is carrying out several gas-related projects. Late 2015, KNPC inaugurated 4<sup>th</sup> Gas Train that was commissioned with production capacity of 805 mmscfpd of gas and 106,000 Barrels per day (bpd) of condensate. Currently, Gas 5<sup>th</sup> Train is being executed and is expected to be commissioned in the second half of 2019. Then, KNPC gas overall production capacity will be 3.3 billion scf/d. To meet the increasing production of gas at Kuwait oil fields and Refineries, the Company is also building a number of tanks for gas storage.

Two important properties of gases are important in developing methods for their liquefaction: increasing the pressure of gas along with cooling its temperature to  $-160^{\circ}\text{C}$ . It is Colorless, Unscented and Non-Toxic, which makes it safer for shipping, transportation, and shipment. When the gas is liquefied, it will be easier to transport, as it does not require large network of pipelines that are costly and impractical for transfer. The gases subjected to liquefaction goes through a process. First, it is cleaned by separating heavier liquids through pipes and vessels from it allowing

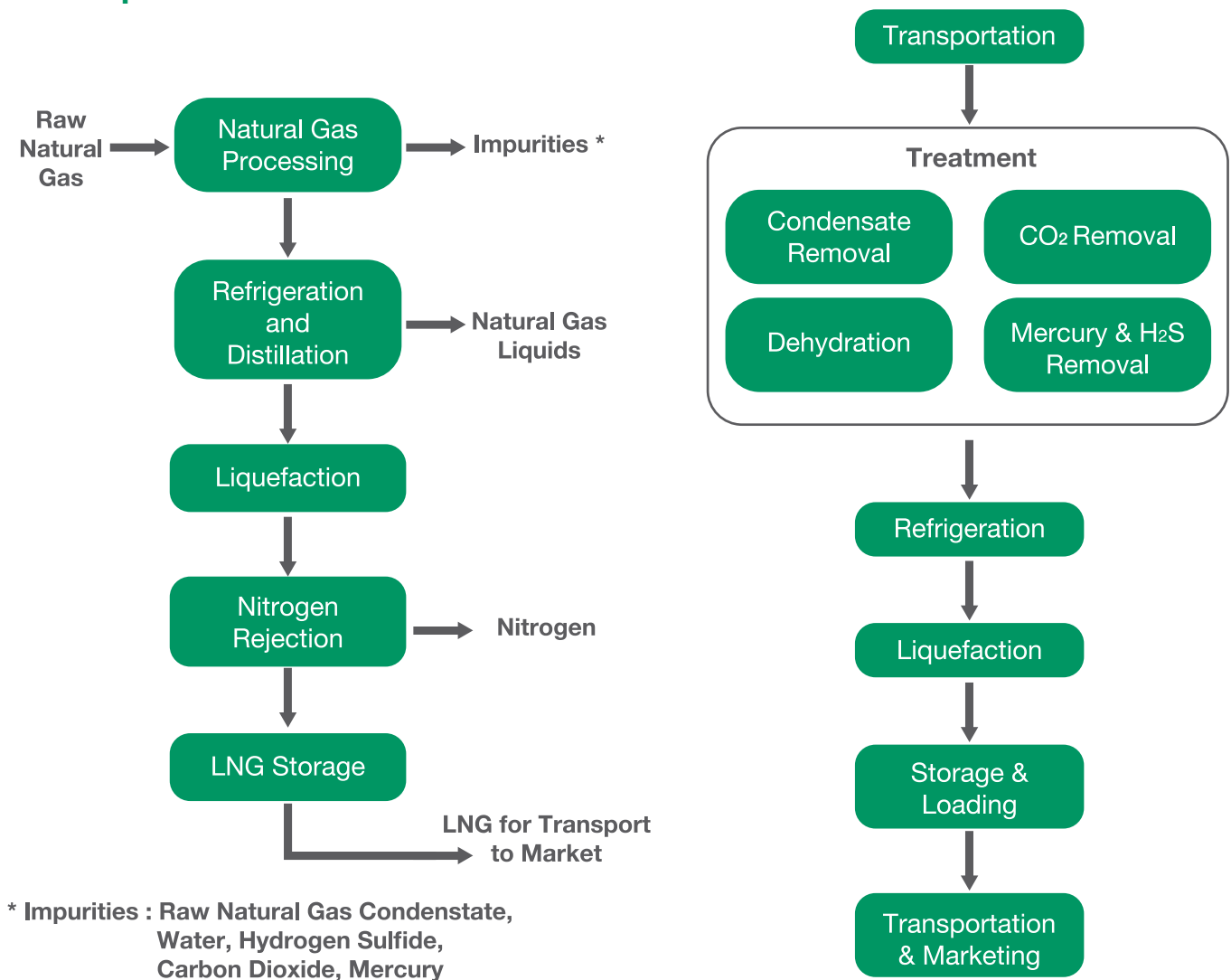
it to be only natural gas. Natural gas passes through a water solvent that absorbs Carbon Dioxide, Hydrogen, and any remaining water as they will freeze when cooling the gas and will cause blockages in the heat exchange system. After that, the purified natural gas methane will be liquefied through heat exchange systems that would cool it down and absorb its heat. This will turn it into a clear liquefied natural gas and it will be kept in tanks until it is ready for loading into a specific ship. It will then be heated again in order to return it to its gaseous state, and will be transported through pipelines to customers providing energy for homes and power stations.







## Gas Liquefaction Process





## Green Procurement Strategy

- Green Procurement Strategy was developed as part of KNPC's continuous efforts to reduce our carbon footprint and the harmful impact on the environment resulting from the procurement of materials and contracting of services.

- The key objectives of Green Procurement Strategy are:

1. To endorse local value creation by promoting the development of the local economy.
2. Encourage suppliers and contractors to adhere to our HSE goals.
3. Identify suppliers with sustainable practices to aid the Commercial Department's aim of sustainable procurement.
4. Work with suppliers who share KNPC's core values of HSE, Business Excellence, Quality, and Commitment.

- Green Procurement Strategy was awarded as the Best HSE Initiative in 2016 within KNPC.

## Sustainability Performance Survey

- Commercial Department has conducted a Sustainability Performance Survey for the year 2016/2017 as part of the Green Procurement Strategy with the aim of safeguarding a sustainable environment in collaboration with our main stakeholders "Suppliers" towards achieving this goal which ultimately meets with the HSE Objectives.

- This survey is considered as benchmark for other future surveys and consequently will assist us in monitoring & assessing Suppliers' performance toward their commitment to sustain & promote our Environment.

- The survey aims to specify if the Suppliers are having or implementing some of the Environmental Management System or Policy and considering environmental criteria into their businesses.

- Survey is distributed to potential suppliers and sample of 61 Suppliers were selected.

- The overall results showed that applying at least one reduction against Environmental impact is followed by most of Suppliers (47). Whereas, ISO 14001 Certification or equivalent and policy publicly are not available for most of Suppliers. Accordingly, Commercial Department took the initiative to give awareness and engage KNPC Suppliers and Contractors with the Green Procurement Strategy.

## Green Procurement Strategy Milestones Achieved Internally

In applying our Green Procurement Strategy, we would like to encourage our Suppliers, Customers and Community in contributing to the positive Environmental preservation.

Various Green Procurement Strategy milestones were achieved internally:

1. Green Procurement Values Charter signed by CEO.
2. Distribution of Green Procurement Policy and Values Charter to KNPC Departments.
3. Green Procurement Strategy awareness event to KNPC Suppliers and Contractors was initiated.
4. Green Procurement quizzes / awareness messages through KNPC Webpage.
5. Introduction of Green Procurement Policy in:
  - a. Tendering Process (Introduction of New Clause of Green Procurement in the Purchase Order General Terms & RFQ Conditions & Instructions to Bidders, Contracts as per HSE guidelines, Suppliers compliance to HSE).
  - b. Warehouse Activities (Packing, labelling, handling & storing of hazardous substances and MSDS availability).





c. Pre-Qualification Process (Compliance to EPA-Kuwait).

d. Utilization of E-Sourcing (Optimizing staff productivity, reduce paper usage).

e. Development of the HSE Section in the Commercial Department Webpage and uploading all Green Procurement Documents.

### **Green Procurement Strategy Milestones Achieved Externally**

1. HSE / Environment Sustainability Performance Survey to KNPC Contractors & Vendors.

2. Engagements of Suppliers through Green Procurement Strategy Awareness Event in KNPC Auditorium.

3. Green Procurement Strategy presentation in Forth KNPC Contractors' HSE Day.











# Employees

G 4 - 9

G 4 - 10

G 4 - LA10

G 4 - LA12

**The** Human Resources Department continues to be committed to recruiting the most qualified personnel throughout Kuwait. The Kuwaitization practice is still in effect that gives priority to the nationals.

This is a social Report that has a total workforce by region (Kuwaiti / Non-Kuwaiti) and gender.

Category	Male	Female
Kuwaiti	5077	571
Non-Kuwaiti	691	14

Category	Male	Female
Top Management ( CEO & DCEO's )	10	0
Managers	30	4
Team Leaders / Coordinators	158	18
Seniors	418	78
Other Employees	5152	485
Total	5768	585

- There are clauses in the Loaned Personnel Agreement that covers the “Code of Conduct” and the Contractor included the same in their Contracts with Seconddees.

- There are clauses in Employment Contract of KNPC staff that covers the Code of Conduct FY 16/17.

## Human Resources Department

This past year marks a milestone for the Company through the Plant Reliability Integrity & Maintenance Excellence (PRIME) Journey supported by Shell Global Solution with (3) main objectives:

1. Gradually improve Operational Availability to 97% (top quartile) in Solomon benchmark by 2026 through reduction of planned and unplanned downtime.

2. Achieve 2<sup>nd</sup> quartile Maintenance Cost Efficiency in 10 years.

3. Sustain high performance in the long term PRIME presently emphasizing on the development of KNPC employee’s competencies and improvement of current asset management strategies through conducting awareness sessions, facilitation programs, and workshops. As a result, we have more than 400 trained employees and 5 units in both Refineries are being studied.

In addition, a Change Management Program had been developed as part of PRIME program to foster a reliability culture within KNPC to ensure sustainability and create awareness among all employees.





The Company is liable for post employment benefits under the Oil Sector Law and the Labor Law.

### Kuwaiti Employees

Pensions and other social benefits for Kuwaiti employees are covered by The Public Institution for Social Security Scheme, to which employees and employers contribute monthly on a fixed-percentage-of-salaries basis. The Company's share of contributions to this scheme, which is a defined contribution scheme, is charged to profit or loss in the year to which they relate. The difference between Oil Sector Law and Labor Law is also accrued for Kuwaiti employees.

### Expatriate Employees

Expatriate employees are entitled to an end of service indemnity payable under the Kuwait Labor Law and the Company's by-laws based on the employees' accumulated periods of service and latest entitlements of salaries and allowances. Provision for this unfunded commitment which represents a defined benefit plan, this has been made by calculating the notional liability had all employees left at the reporting date.



## Structured On Job Training (S-OJT)

This program that aims at training newly joined employees with no pre-employment experience in actual work settings. The program is designed for trained and experienced employees to mentor new employees in a one-to-one specific job training.

### S-OJT at KNPC

The Company has a clear systematic approach towards maintaining the effectiveness of the program and its valuable employees.

Within KNPC:

- S-OJT applies on a total of 34 jobs.
- Additional 30 jobs of different disciplines are planned for S-OJT phase II.
- Duration of training programs ranges from 150 to 350 working days.

### Developing A Curriculum (DACUM)

This is described as an occupational analysis process conducted in small group methods. The process includes a panel of around 6 to 8 experienced workers who in turn will work to identify duties, skills, knowledge, traits and tasks of a specific occupation. Furthermore, the process also includes neutral facilitator, recorders and observers.

The major advantage of DACUM is that it is cost effective and it creates a positive learning experience during the process to produce high quality job profiles. That's why on May 2015 the S-OJT Team at KNPC was certified on DACUM Level 1 that marks the ability to create and design

the On-Job Training Modules independently. The S-OJT Team took a further step in developing the program by getting certified with DACUM Level 2, a level achieved by only 50 people around the world.

As of July 2015, five DACUM workshops as well as 5 Task Analysis workshops, with the assistance of a pool of experienced employees, were conducted for the following jobs:

1. Controller Employee Development
2. Chemist
3. Accountant Accounts Payable
4. Engineer Depot
5. Controller Performance & Rewards

### Lean Six Sigma Program

KNPC started in 2015 to qualify employees for Lean Six Sigma Green Belt Certification. So far, 4 waves of Six Sigma Green Belt Training were carried out for 52 employees, out of which 31 have been successfully certified. In continuation to the initiative, another wave of Lean Six Sigma Green Belt training is planned for the Fiscal year 2018-19.

Presently, certified Lean Six Sigma Green Belts are utilizing the skills and capabilities that they acquired in addressing issues and problems. In line with KNPC vision towards superior performance, initiatives are being taken to create business process improvement opportunities pipeline for sustained growth. In the near future, trained and qualified lean Six Sigma Black Belts will lead these improvement opportunities at their respective directorates.







## Women Engineers

Five Kuwaiti Engineers are engaged in a new experience in the oil sector, where they are now trained by expert technical workers to enhance the technical efficiency and gain experience on the ground. Those Engineers work in manufacturing and production departments at MAA and MAB Refineries. The experience aims to change the usual values and enhance the role of women in field work, with the need for specialized Engineers to manage operations, gas and other basic works. The majority of Engineers working in the Company were desired to enter this program and had technical capabilities in all its needs.

KNPC provides all the support for the Engineers to progress and develop in the Company towards achieving the integration of all manpower through the use of abilities of both men and women. The opportunity is available to Engineers to acquire the necessary skills to manage the various fields of work in Refineries and the oil sector and to prove their ability to face all difficulties and challenges. The trial will be evaluated in July 2018 and if it was successful it will be transferred to the other K- Companies.



### Wadha Ahmad Al-Khateeb

*KNPC Manager- Technical Services Department (MAA-TSD) and the first Kuwaiti lady to Chair the GCC Branch of the Gas Processing Association (GPA)*



New practice of Attaching MAA Process / Process Control Engineers with Operations Department is being implemented, to enhance their technical as well as operating knowledge of the process units. It also helps our Engineers to have better interpersonal relationship with Operations personnel.

As part of KPC initiative, Professional Women Network (PWN) program was implemented for the first time in KNPC and the following Female Engineers were attached to Operations department to receive training in Operations work. It is to be noted that all those Engineers are trained & certified by Operations to work in Panel as well as field operations of the respective units, in which they were attached.

S.No	Name	Unit Assigned
------	------	---------------

1	Moudi Al-Deweesh	HCR
---	------------------	-----

2	Fatemah Fraidoun	HCR
---	------------------	-----

3	Sarah Al-Shatti	HCR
---	-----------------	-----

4	Afnan Al-Darweesh	Train-4
---	-------------------	---------

5	Fedhah Al-Dabbous	Train-4
---	-------------------	---------

In addition, the following Female Engineers were attached to Operations Department and they have successfully completed their Operations training:

S.No	Name	Unit Assigned
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1	Jumanah Al-Abdullah	CDU
---	---------------------	-----

2	Sara Al-Mutairi	RETF
---	-----------------	------

3	Tahreer Salem	KD
---	---------------	----

4	Hend Al-Hemlan	MAFP
---	----------------	------

5	Shekha Al-Mansour	FCC
---	-------------------	-----

Further, the following Female Engineers are attached to Operations Department starting Nov / Dec 2017 respectively and their training is in progress as per schedule.

1	Fatemah Al-Mutairi	CDU
---	--------------------	-----

2	Arwa Al-Qahtani	GOD
---	-----------------	-----













# Economic

G 4 - 2

G 4 - 3

G 4 - 6

G 4 - 7

G 4 - 17

G 4 - EC 1

**As a member** in the Organization of the Petroleum Exporting Countries (OPEC), Kuwait's economic status had been impacted by the recent oil price collapse period, affecting the 60% gross domestic product (GDP) and most of Kuwait's exports. Though, after the OPEC oil production cut agreement has been reached, which aims to rebalance the world oil supply and demand, the downstream sector of Kuwait has reacted positively.

KNPC has kept positive performance against these impacts following a steady increase in oil prices during the fiscal year 2016/2017, West Texas Intermediate (WTI) crude oil price went from \$36.79 to \$50.60, as well as continuous growing state of world oil demand in 2016 mainly from Asia and Pacific region, Kuwait main exporting destination has grown at 1.26 m b/d in 2017. KNPC recorded KD 216 million of total profits at the end of the FY 2016/2017. KNPC achieved higher than planned KD 102 million savings in operating expenses, which helped in offsetting the fall in prices and sales.

## Financial Scope

Kuwait National Petroleum Company K.S.C. State of Kuwait Statement of profit or loss and other comprehensive income for the year ended 31 March 2017.

## Reporting Entity

The Company buys crude oil and feedstock from the Parent Company (KPC) for refining and sells the refined products primarily to the Parent Company. Prices for these transactions are determined in accordance with a supply agreement between the Company and the Parent Company.

The Company also distributes petroleum products within the State of Kuwait on behalf of the Parent Company in addition to providing other fuel station ancillary services. The financial

statements are presented in Kuwaiti Dinars, which is the Company's functional currency. All financial information presented in Kuwaiti Dinars has been rounded to the nearest thousand.

In preparing these financial statements, Management has made judgements, estimates and assumptions that affect the application of the Company's accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Spare parts, materials and supplies mainly used in operations are valued at lower of cost and net realizable value. Cost is determined using the weighted average cost method. Provision is made for slow moving items where necessary and is recognized in the statement of profit or loss.

## Statutory Reserve

In accordance with the Company's Law and the Company's articles of association, 10% of profit for the year is transferred to the statutory reserve until the reserve reaches a minimum of 50% of the paid up share capital. The shareholders may resolve to discontinue such annual transfers when the reserve totals 50% of paid up share capital. Distribution of the reserve is limited to the amount required to enable the payment of a dividend of 5% of paid up share capital to be made in years when accumulated profits are not sufficient for the payment of a dividend of that amount.

## Financial Risk Management

The Company has exposure to the following risks arising from financial instruments:

- *credit risk* • *liquidity risk* • *market risk*

This note presents information about the Company's exposure to each of the above risks, the Company's objectives, policies and





processes for measuring and managing risk and the Company's management of capital.

## Risk Management Framework

The Board of Directors has overall responsibility for the establishment and oversight of the Company's risk management framework. The Board of Directors is responsible for developing and monitoring the Company's risk management policies.

The Company's risk management policies are established to identify and analyze the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and Company's activities. The Company, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations.

The Company's risk oversight committee oversees how management monitors compliance with the Company's risk management policies and procedures and reviews the adequacy of the risk management framework in relation to the risks faced by the Company.

## Credit Risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the trade receivables, due from related parties, receivable from the Parent Company, other receivables and bank balances.

## Operational Risk

Operational risk is the risk of loss arising from systems failure, human error, fraud or external events. When controls fail to perform, operational risks can cause damage to reputation, have legal or regulatory implications, or lead to financial loss.

The Company cannot expect to eliminate all operational risks, but through a control framework and by monitoring and responding to potential risks, the Company is able to manage the risks. Controls include effective segregation of duties, access, authorization and reconciliation procedures, staff education and assessment processes.

Management has implemented health and safety policies and procedures in addition to an adequate insurance coverage to mitigate operational risk.



## Prepayment Risk

Prepayment risk is the risk that the Company will incur as a financial loss because its customers and counterparties repay or request repayment earlier or later than expected. The Company is not significantly exposed to prepayment risk.

## Fair Value of Financial Instruments

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Underlying the definition of fair value is the presumption that the Company is a growing concern without any intention, or need, to liquidate, curtail materially the scale of its operations or undertake a transaction on adverse terms.



Description	Amount (KD)	
	2014/15	2016/17
Total Revenue (KD)	10,965,756.725	6,574,907
Operating Cost (KD)	684,554,398	658,409,805
Employee Wages and Benefits (KD)	447,831,000	399,875,000
Training Cost	16,261,351	11,533,833
Sponsorship and Donations	261,646	199,875
CAPEX	493.4 Million	2,100,324 Million
ROACE Percentage	0.174%	3.24%
Contribution to Economy (Million KD)	11,005	6,598















# Safety

G4-LA6

**Lost** workday case details of all sites - Year To Date (YTD).

(APRIL 2016 – MARCH 2017)

SITE Lost Work Daycase (LWC)		LWC	DL (Days Lost)	FATAL
PROJECTS	KNPC	0	0	0
	CONT.	8	240	1
ZOUR	KNPC	0	0	0
	CONT.	0	0	0
MAA	KNPC	4	47	0
	CONT.	3	9	0
MAB	KNPC	1	25	0
	CONT.	1	39	0
SHU	KNPC	1	59	0
	CONT.	0	0	0
LM	KNPC	0	0	0
	CONT.	0	0	0
HO	KNPC	0	0	0
	CONT.	0	0	0
TOTAL	KNPC	6	131	0
TOTAL	CONT.	12	288	1







Details of Frequency Rate and Severity Rate of all sites – Year To Date (YTD).  
(APRIL 2016 – MARCH 2017)

SITE		Frequency Rate (FR)	FR Common	Severity rate (SR)	SR Common	Fatal (FR)	Fatal FR Common
YTD			YTD	YTD	YTD	YTD	YTD
PROJ-ECTS	KNPC	0.000		0.000		0	
	CONT.	0.015	0.015	0.394	0.393	0.001641	0.002
ZOUR	KNPC	0.000		0.000		0	
	CONT.	0.000	0.000	0.000	0.000	0	0.000
MAA	KNPC	0.233		2.738		0	
	CONT.	0.047	0.087	0.141	0.693	0	0.000
MAB	KNPC	0.066		1.641		0	
	CONT.	0.025	0.037	0.992	1.173	0	0.000
SHU	KNPC	0.089		5.254		0	
	CONT.	0.000	0.028	0.000	1.653	0	0.000
LM	KNPC	0.000		0.000		0	
	CONT.	0.000	0.000	0.000	0.000	0	0.000
HO	KNPC	0.000		0.000		0	
	CONT.	0.000	0.000	0.000	0.000	0	0.000
TOTAL	KNPC	0.105	0.0217	2.284	0.479	0	0.001
TOTAL	CONT.	0.016		0.352		0.001222	



# Certificates

**KNPC** Head Office building has obtained the GOLD certificate with Global Sustainability Assessment System (GSAS) under Operations scheme. KNPC Head Office, which was established in 2005, is the first certified Green Building in Kuwait under GSAS rating system for existing operating buildings. The journey began in July 2016 when a Memorandum Of Understanding (MoU) was signed between KNPC and Gulf Organization for Research & Development (GORD) to take significant steps for collaboration in the field of green building and sustainability.

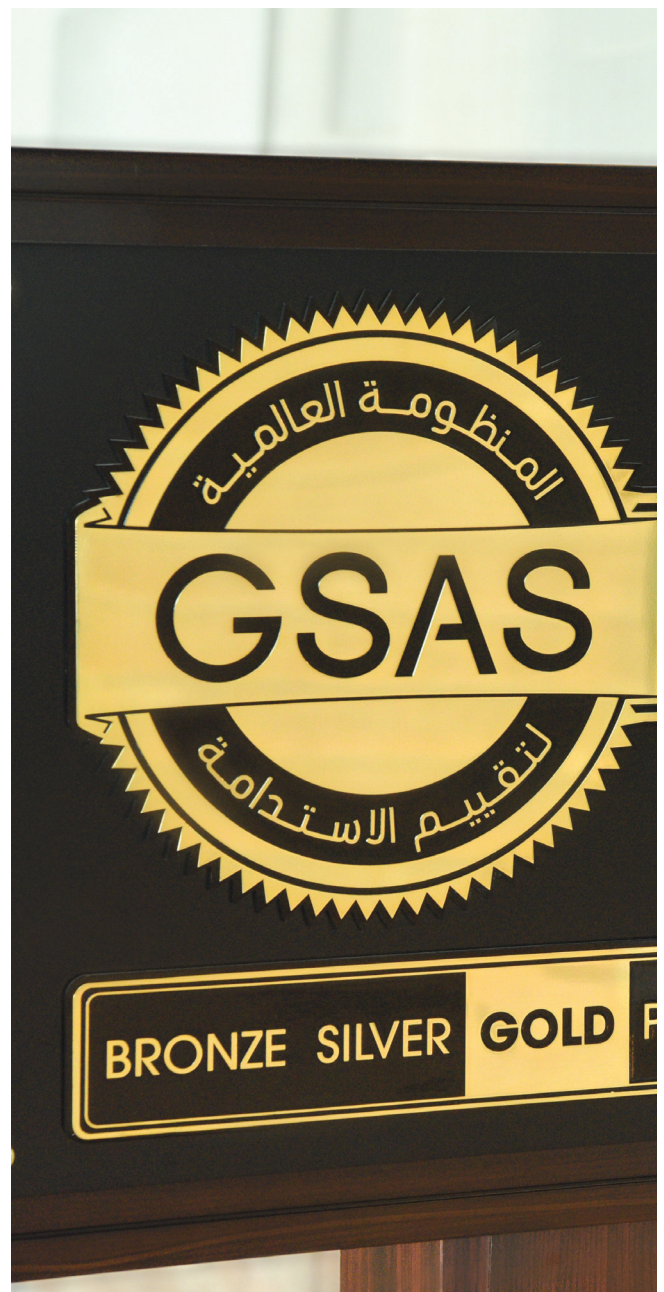
KNPC team, headed by R&T Department, worked meticulously along with GORD to prepare, submit and finalize the application. This success could have not been achieved without the perseverance of all team members. Our Head Office is expected to receive the Platinum certificate within a year after implementing minor modifications recommended by GORD.

QHSSE policy rev.7 for KNPC will be effective in early 2018. This policy incorporates KPC Health, Safety & Environment policy in its entirety.

The policy includes requirements of OHSAS 18001:2007, ISO 14001:2015 & ISO 9001:2015 standards as part of a successful implementation of Integrated Management System.

This policy is an overall intention and direction of KNPC QHSSE performance and commitment by all members of KNPC. Among several important issues, the policy includes our promise on compliance to legal and other requirements; prevention of pollution, prevention of injury & ill health; efficient use of resources; produce/market/distribute quality products; setting of objectives and targets to continual improvements; enhancement of QHSSE culture; learning from incidents and appropriate response to emergencies. All these are backed by sound detailed procedures, organization and other necessary resources to implement them.

All employees including contract workers shall adhere to the provision of the policy. This is done through performing right things all the time and strict observance of company standards, procedures and guidelines.

















# Social Activities

G4-EN13

## Beach Cleaning Campaign



## Wheelchairs Donation



## Bee Habitat







## Blood Donations



## Interesting Fact:

### Bee Habitat at KNPC

**You** would not expect a Refining oil company to produce Honey. In late 2016 the General Services Department at KNPC has set up a Honey Bee colony in its Head Office garden.

The idea started with the previous General Services Manager: Mr. Saleh Saad Al-Rakhayes. In the fiscal year 2016-2017, KNPC's Bee hives produced 80 kilograms of Honey which was given out to Top Management. The hives host approximately 3000 Bees and they get harvested 3-4 times a year and in one session, they can extract 4-7 kilograms of Honey from each hive.

The Ahmadi area around KNPC has a lot of flowers, the introduction of the Bees add value to the surrounding environment since Bees roam 3-5 kilometers around their hives.

The General Services Department plans on expanding its Bee colony to other areas within the company.



**Saleh Saad Al-Rakhayes**  
Manager Projects II



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The Board of Directors and Management  
Kuwait National Petroleum Company  
Kuwait

30 April 2018

## Independent Assurance Statement to Kuwait National Petroleum Company Management

### Our Engagement

We were retained by Kuwait National Petroleum Company (the Company) to provide an independent assurance of its Sustainability Report (the Report) for the period April 2016 to March 2017. The Company's management is responsible for identification of material issues, the content of the Report, engagement with stakeholders and its presentation in accordance with Global Reporting Initiative G4.

Our responsibility is to provide independent limited assurance on the Report content as described in the scope of assurance. Our responsibility, in performing our assurance activities, is to the management of the Company only and in accordance with the terms of reference agreed with the Company. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organization. Any reliance any such third party may place on the Report is entirely at its own risk. The assurance report should not be taken as a basis for interpreting the Company's overall sustainability performance except for the aspects mentioned in the scope.

### Our Assurance Team

Our assurance team, comprising of multidisciplinary professionals, was drawn from our Middle East Climate Change and Sustainability Services Practice, which undertakes engagements similar to this with a number of significant international businesses.

### Scope of Assurance

The scope of assurance covers sites and selected indicators specifically:

- Data and information related to the Company's sustainability performance for the period 1st April 2016 to 31st March 2017;
- The Company's internal protocols, processes, and controls related to the collection and collation of the sustainability performance data;
- Visits to the Company's head office and selected refinery offices (Mina Al Abdullah) where our work comprised review of the below-mentioned indicators and interaction with the Company's team to understand the current status of sustainability and progress made on commitments in the reporting period; and
- Our assurance process is focused on following twelve KPIs as reported in the Report developed by the Company
  - G4-02: Description of key impacts, risks, and opportunities
  - G4-09: Scale of the organization
  - G4-12: The organization's supply chain
  - G4-24: Stakeholder groups engaged by the organization
  - G4-25: Basis for identification and selection of stakeholders
  - G4-26: organization's approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group
  - G4-27: key topics and concerns that have been raised through stakeholder engagement, and how the organization has responded to those key topics and concerns





- G4-56: the organization's values, principles, standards and norms of behavior such as codes of conduct and codes of ethics
- G4-EC1: Direct economic value generated and distributed
- G4-EN15: Direct greenhouse gas (GHG) emissions (Scope 1)
- G4-EN19: Reduction of greenhouse gas (GHG) emissions
- G4-LA6: Type of injury and rates of injury, occupational diseases, lost days and absenteeism, and total number of work-related fatalities, by region and by gender.

#### The Limitations of our Review

The scope of assurance excludes:

- Aspects of the data/information other than those mentioned under 'Scope of Assurance';
- The Company's statements that describe an expression of opinion, belief, aspiration, expectation, the aim of future intention, narrative sections, except where selected KPIs in the scope above are disclosed.
- Review of "economic performance indicators" included in the Report which we understand are derived from the Company's audited financial records;
- Our assurance activities relating to environmental emissions, including GHG assessed the collation and accuracy of conversion of data. We did not verify the accuracy of source data, such as flow monitoring. With the exception of a site visit to Mina Abdullah facility, our work was limited to headquarters activities.

#### Our Approach

The assurance engagement was planned and performed in accordance with the International Federation of Accountants 'International Standard for Assurance Engagements other than Audits or Reviews of Historical Financial Information (ISAE 3000)'. Our evidence-gathering procedures have been designed to obtain a limited level of assurance (as set out in ISAE 3000) on which we base our conclusions.

The approach to the assurance exercise included interaction with key personnel to review the Company's internal protocols, processes, and controls related to the collection and collation of sustainability performance data in accordance with GRI-G4 guidelines. We conducted a review of the data collection process, measurement methodology and general review of the logic of inclusion/omission of necessary information/data based on sampling principles based on risk assessments, limited to:

- Review of any major anomaly within the Report as well as between the Report and source data/information;
- Verification of the data and information reported at the refinery office (Mina Abdullah) and corporate office;
- Execution of audit trails of selected data streams and information to test the level of accuracy in collection, transcription and aggregation processes;
- Review of the Company's plans, policies, and practices, so as to be able to make comments on the completeness of the reporting and the degree to which the Report provides a fair and honest representation of the Company's selected sustainability performance.

#### Visits to the Company's Locations

We visited the Company's corporate offices and refinery office (Mina Abdullah) to review data collection procedures and evidence to gain confidence on the data and selected claims presented in the Report. The sample data was tested for its integrity and accuracy. Assumptions made for arriving at final numbers against the sustainability performance indicators were understood and necessary clarifications were obtained. Appropriate evidence to support the conclusions in this assurance report were obtained.

### Observations

Our observations and areas for improvement will be raised in a report to KNPC management. Selected observations are provided below. These observations do not affect our conclusions on the Report set out in this statement.

- KNPC has been developing processes to identify and disclose material information in its annual sustainability reporting, however, there is scope for developing KNPC's materiality analysis further by incorporating external stakeholder views to delineate the most material issues for the Company.
- We recommend KNPC report on how the precautionary principle is addressed by the organization.
- KNPC could consider further reporting on the aspect boundary by mapping each identified material issue with respective entities within or outside the organization.
- KNPC should consider extending its stakeholder engagement advisory committee to reach external stakeholders to receive feedback on all material issues identified in the sustainability report.
- The report could consider including the approach to stakeholder engagement, including frequency of engagement by type and by stakeholder group, and an indication of whether any of the engagement was undertaken specifically as part of the report preparation process.
- The report does not disclose the management approach to health and safety (GRI G4-LA6) and information related to the system of rules applied in recording and reporting accident statistics.
- KNPC should highlight methodologies and calculations used to reach the data reported in the direct economic value generated and distributed (GRI G4-EC1).

### Our Conclusions

On the basis of our review, and in accordance with the terms of reference for our work, nothing has come to our attention that would cause us not to believe that:

- The Report presents the Company's material performance covering indicators as mentioned in the scope of assurance;
- The Report content presents a fair, balanced and accurate overview of the Company's selected sustainability performance;
- To contextualize sustainability performance, the Report has made an effort to align with the broader agenda of the KPC 2040 Strategy;
- We have reviewed information or explanations on the statements on KNPC's sustainability activities presented in the Report and we are not aware of any material misstatements in the assertions made;
- Nothing has come to our attention that causes us to believe that the data relating to the above topics has not been collated properly at headquarter level; and
- We are not aware of any errors that would materially affect the data as presented in the Report.



Ernst & Young  
Kuwait  
30 April 2018





# GRI G4 Content Index



**Materiality Disclosures**  
Kuwait National Petroleum Company

Jun 2018  
**Service**

## General Standard Disclosures (In accordance – Core Option)

General Standard Disclosures	Description of the Indicator	Page No.	External Assurance
<b>Strategy and Analysis</b>			
G4-1	CEO Statement	11	No
G4-2	Key impacts, risks and opportunities	34, 35, 80, 81, 82	Yes
<b>Organizational Profile</b>			
G4-3	Name of the organization	13, 80	No
G4-4	Company Products	20, 21, 42	No
G4-5	Location of Head office	13	No
G4-6	Name of Country where the organization operates in	13, 14, 80	No
G4-7	Nature of ownership and legal form	13, 80	No
G4-8	Markets	20, 21	No
G4-9	Organization Scale	72	Yes
G4-10	Breakdown of workforce	72	No
G4-11	Collective Bargaining	30, 31	No
G4-12	Organizations Supply Chain	22, 23	Yes
G4-13	Report any significant changes during the reporting period	14, 38, 39	No
G4-14	Addressing precautionary approach or principle	16, 30, 31	No
G4-15	External charters, principals, or other initiatives endorsed.	30, 31	No
G4-16	Memberships of association	16	No
<b>Identified Material Aspects and Boundaries</b>			
G4-17	Entities included in organizations financial statements	80, 81, 82	No
G4-18	Process for defining report content	14, 15	No
G4-19	Material Aspects identified	15	No
G4-20	Aspect boundary within the organization	15	No
G4-21	Aspect boundary outside the organization	15	No
G4-22	Restatements of information provided in previous reports	14	No
G4-23	Significant changes from previous reporting period in the scope and boundary	14	No
<b>Stakeholder Engagement</b>			
G4-24	List of stakeholder groups	26, 27, 28, 29	Yes
G4-25	Basis for identification and selection of stakeholders	26, 27, 28, 29	Yes
G4-26	Approach to stakeholder engagement	26, 27, 28, 29	Yes
G4-27	Response to key topics and concerns raised	26, 27, 28, 29	Yes

General Standard Disclosures	Description of the Indicator	Page No.	External Assurance
<b>Report Profile</b>			
G4-28	Reporting Period	14	No
G4-29	Date of most recent previous report	14	No
G4-30	Reporting Cycle	14	No
G4-31	Contact point for questions	13	No
G4-32	GRI content index and external Assurance	14	No
G4-33	Policy and current practice regarding external assurance	14	No
<b>Governance</b>			
G4-34	Governance structure of the organization	17	No
G4-35	Process for delegating authority for economic, environmental and social topics	16	No
G4-36	Report whether the organization has appointed an executive-level positions with responsibility for economic, Environmental and social topics	17	No
G4-37	Process for consultation	26, 27	No
G4-38	Composition of the highest governance body and its committees	16	No
G4-39	Report whether the Chair of the highest governance body is also an executive officer	17	No
G4-40	Nomination and selection process for the highest governance body and its committees	30, 31	No
G4-46	Report the highest governance body's role in reviewing the effectiveness of the organization's risk management processes	35	No
G4-49	Process for communicating critical concerns to the highest governance body	16	No
G4-50	Nature and total number of critical concerns	34, 35	No
<b>Ethics and Integrity</b>			
G4-56	Code of conduct and code of ethics	30, 31	Yes
<b>Category Economic</b>			
<b>Material Aspects: Economic Performance</b>			
G4-EC1	Economic value generated and distributed	80, 81, 82	Yes
<b>Category Environmental</b>			
<b>Material Aspect: Energy</b>			
G4- EN3	Energy Consumption within the organization	52	No
<b>Material Aspect: Water</b>			
G4- EN8	Total water withdrawal by source	60, 61, 62, 63	No
G4- EN10	Percentage and total volume of water recycled and reused	60, 61, 62, 63	No
<b>Material Aspect: Biodiversity</b>			
G4- EN13	Habitats Protected or restored	92, 93	No
<b>Material Aspect: Emissions</b>			
G4-EN15	Direct greenhouse gas (GHG) emissions	50, 51, 53	Yes
G4-EN19	Reduction of greenhouse gas (GHG) emissions	56, 57	Yes





General Standard Disclosures	Description of the Indicator	Page No.	External Assurance
<b>Material Aspect: Effluent and Waste</b>			
G4-EN24	Total number and volume of significant spills	48, 49	No
<b>Material Aspect: Compliance</b>			
G4-EN29	Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with environmental laws and regulations	30	No
<b>Material Aspect: Transport</b>			
G4-EN30	Environmental impacts of transporting products and other goods and materials	56, 57	No
<b>Category: Social</b>			
Sub Category: Labor Practices and decent work			
<b>Material Aspect: Occupational Health and Safety</b>			
G4-LA6	Type of injury and rates of injury	86, 87	Yes
<b>Material Aspect: Training and Education</b>			
G4-LA10	Programs for skills management and lifelong learning	74, 75	No
<b>Material Aspect: Diversity and Equal Opportunity</b>			
G4-LA12	Breakdown of employees per employee category according to gender, age group, etc	73	No
Sub Category: Human Rights			
<b>Material Aspect: Freedom of Association and Collective Bargaining</b>			
G4-HR4	Operations and suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and measures taken to support these rights	30, 31	No
Sub Category: Society			
<b>Material Aspect: Anti-Corruption</b>			
G4-SO5	Confirmed Incidents of Corruption and Action Taken	30, 31	No
<b>Material Aspect: Anti-Competitive Behavior</b>			
G4-SO7	Total number of legal actions for anti competitive behavior, anti-trust, and monopoly practices and their outcomes	30	No
<b>Material Aspect: Compliance</b>			
G4-SO8	Monetary Value of Significant Fines and total number of non-monetary sanctions for non-compliance with laws and regulations	30	No
Sub Category: Product Responsibility			
<b>Material Aspect: Customer Privacy</b>			
G4-PR8	Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data	31	No

# Acknowledgments

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To each and every one of you, we thank you sincerely. We appreciate your time, commitment and dedication towards our combined goal of best representing KNPC’s Sustainability Initiatives to our Stakeholders.”

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Manager Corporate Communication

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Corporate Planning Department  
Corporate Communication Department  
Commercial Department  
Finance Department  
Clean Fuel Project Department  
Health, Safety & Environment Department  
Compliance Officer  
Training & Career Development Department  
Health, Safety & Environment Department  
Health, Safety & Environment Department  
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# Glossary

AA100:	Accountability Standards
ADR:	European Agreement Concerning the International Carriage of Dangerous Goods by Road
ATK:	Aviation Turbine Kerosene
CAPEX:	Capital Expenditure
CCD:	Corporate Communication Department
CEO:	Chief Executive Officer
CPI:	Corrugated Plates Interceptor
CO2 Equivalent:	Carbon Dioxide Equivalent
CFP:	Clean Fuel Project
DAF:	Dissolved Air Flotation (Feed Pumps)
DCEO:	Deputy Chief Executive Officer
DISC Analysis:	A Personell Assessment Tool
DPK:	Duel Purpose Kerosene
D/C:	Direct Charge
EPA-Kuwait:	Environment Public Authority - Kuwait
FCCU:	Fluid Catalytic Cracking Units
FEED:	Front End Engineering & Design
FR:	Frequency Rate
FTE:	Full Time Equivalent
FUP:	Further Upgrading Project
FY:	Fiscal Year
GSD:	General Services Department
HCR:	Hydro Cracking Units
HO:	Head Office
H2S:	Hydrogen Sulfide
JP5:	Jet Propellent 5 (Jet Fuel)
KAACH:	Kuwait Association for the Care of Children In Hospitals
KPC:	Kuwait Petroleum Company
K-Companies:	KPC and it's Subsidiaries
KPI:	Kuwait Petroleum International
KRCM:	KNPC regular communications meetings
PAAET:	Public Authority for Applied Education and Training
PIC:	Petrochemical Industries Company
KOC:	Kuwait Oil Company
KPI:	Key Performance Indicators
LDP:	Leadership Development Program
LIMS - KNPC Lab:	Laboratory Information Management System
LPG:	Liquified Petroleum Gas
LSFO:	Low Sulphur Fuel Oil
MAA:	Mina Ahmadi
MAB:	Mina Abdulla
MEW:	Ministry of Electricity & Water
MINA:	Port
MOC:	Ministry Of Communications
MWH:	Mega Watt Hours
MT:	Metric Ton
NOx:	Nitrogen Oxide
OTS:	Opperationl Technologies
PAAET:	Public Authority for Applied Education & Training
PD:	Projects Departments
PMP:	Project Management Professional
RETF:	Research and
RMP:	Risk Management Plan
ROACE:	Return On Average Capital Employed
ROSPA:	Royal Society for the Prevention of Accidents
SCFPD:	Square Cobic Feet Per Day
SHEEC:	Safety & Health Environmental Executive Committee
SHFP:	Sulphur Handeling Facilities Revamp and New Projects
SHU:	Shuaiba Refinery
SO2:	Sulphur Dioxide
SOx:	Sulphur Oxide
S-OJT:	Structural Job Training
SRU:	Sulphur Recovery Unity
SS:	Support Services
TGTU:	Tail Gas Treatment Unit
TM:	Talent Management
TSD:	Technical Services Department
UNFCCC:	United Nations Framework Convention on Climate Change
VCO:	Value Chain Optimization







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