



MOGEC Develops Local Engineers to Meet O&G Challenges

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The Association of Malaysian Oil and Gas Engineering Consultants (MOGEC) was formed in 1999 by a group of six main players in the upstream sector of the oil and gas industry. It was an offshoot of CORAL (Cost Reduction Alliances), a major oil and gas industry initiative formed to establish a framework on cost reduction within the Malaysian oil and gas industry.

MOGEC's objectives are:

1. To provide forum for discussion on issues of common interest;
2. To stimulate cooperation among members;
3. To develop local resources;
4. To promote collaboration with local education institutions;
5. To attract new aspirants to the oil and gas industry.

The oil and gas industry is split into upstream and downstream sectors. The upstream sector includes exploration and production of crude oil while the downstream sector includes oil refining, gas processing and liquefaction, petrochemical manufacturing and marketing of petroleum products.. Although MOGEC was formed by upstream players, membership was later opened to downstream players as well. Since then, MOGEC membership has grown in size. Currently, MOGEC has 36 members; made up of Founder Members, Ordinary Members and Associate Members. Founder Members are the

original six companies that founded MOGEC: Technip, AkerKvaerner, MMC Oil and Gas Engineering, Sime Engineering, Ranhill Worley and Protek Engineers. Ordinary Members are companies that joined MOGEC later and have the capability to provide multi-discipline engineering design services for the upstream and downstream sectors of the oil and gas industry. Associate Members include small or specialised engineering services companies as well as other engineering companies that provide specialist studies, sales/services of equipment/materials, fabrication of equipment packages and manpower supply to the oil and gas industry.

Services provided by MOGEC members range from project management, engineering design, procurement, construction, commissioning/ decommissioning, project control, quality assurance and HSE. Currently, MOGEC members' main clients include subsidiaries of PETRONAS, ExxonMobil, Shell, Talisman and Murphy Oil.

Development of Local Resources

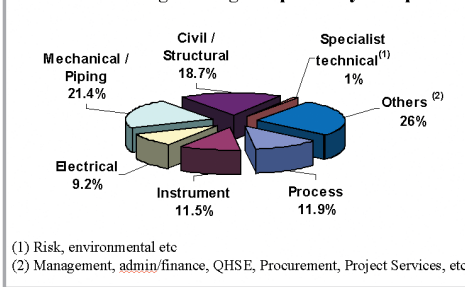
PETRONAS' Umbrella Contract, introduced in the mid 1980s for the upstream sector, made it mandatory for all design work (where possible) to be performed locally by licensed contractors/consultants. This helped the local engineering services industry for oil and gas industry to develop. Without this contract/agreement, many engineering services would be done overseas. This is understandable as petroleum companies are mainly foreign.

The oil and gas industry is a "high tech" industry. Many local engineering services consultants here have overseas links as there are specialised areas in the oil and gas industry. These local engineering consultants have learned from these partners via technology transfer arrangements. These local engineering consultants have gone through a learning curve; learning from various problems and all these experiences are kept in the country. If foreign engineers were used, the experience gained would be kept in the foreign country. In addition, foreign exchange would flow out of Malaysia as foreign currency is used in the oil and gas sector.

Challenges

Despite the favourable environment and opportunity provided by PETRONAS, local engineering services consultants continually face the problem of finding staff to be assigned to projects. This is due to shortage of local engineers with the right experience. The

Breakdown of engineering companies by discipline:



Offshore Platform Project (Topside)



Onshore Pipeline Project



Offshore Platform Complex R&R Project

Oil, Gas and Mining Technical Division



Plant R&R (Revamp & Rejuvenation) Project

situation is further worsened when Clients award contract to engineering services consultants, they are very specific on who would be assigned on their projects. They practically approve each and every individual engineer assigned. They would not approve a graduate engineer with no experience to work on their projects. Thus the entry level for graduates into the industry is almost impossible.

Realising this, MOGEC recently submitted a proposal to PETRONAS to make employment and training of fresh graduates on Production Sharing Contractors (PSCs) projects as a requirement; with PSCs absorbing half of their cost and the other half being borne by Engineering Services Consultants.

In addition to the “on-the-job” training to enhance capability of local engineers, MOGEC is also pursuing training of local engineers through classroom and practical training via training providers. One such effort was a discussion made with Majlis Latihan Vokasional Kebangsaan. These efforts are necessary to ensure sufficient supply of qualified local engineers. This replenishment of ‘home grown timber’ is critical especially at this stage where the nation loses many experienced engineers to international companies.

Future Outlook

Once the issue on shortage of experienced manpower has been managed, MOGEC plans to develop Kuala Lumpur as the regional hub for engineering services for the oil and gas industry.

For example, if there is a project in Malaysia and within the region or even worldwide, the plan is to have Malaysian engineers to provide engineering services from Malaysia. With the advancement of Information and Communication Technology, location is not critical. Works can be done in Malaysia for projects in the region and the Middle East for instance.

Malaysia offers several advantages as an engineering hub:

- Booming indigenous oil and gas industry
- Good infrastructure
- Political stability
- Proximity to market in the region
- Low cost base
- English language as means of communication

Currently some MOGEC members like Technip, AkerKvaerner, Ranhill Worley, MMC and OGP are already exporting services to China, Middle East, Africa and elsewhere in Asia. Other members too should take the opportunity to join the bandwagon and take the opportunity to initially provide support to their elder brothers as a “stepping stone” before they become equally successful themselves.

It is also hoped that in the future, MOGEC members will be able to overcome greater challenges faced by the oil and gas industry such as venturing into deepwater development for the upstream sector and executing more complex plant for the downstream sector. With these efforts, Kuala Lumpur can be developed into a regional hub for engineering services for the upstream and downstream sectors of the oil and gas industry; providing quality engineering services at competitive prices. ■

MOGEC MEMBERS



Competitiveness Of The Industry

