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Energy Industry Competency Framework (EICF)

A ‘Whole of Nation’ Approach to Local Workforce Development

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Energy Industry Competency Framework

Introduction

The Energy Sector in the Brunei Economy

The energy sector, comprising oil and gas exploration and production, petrochemical & refineries, fuel and power has been a core pillar of Brunei economy ever since the first oil discovery in 1910.

According to statistics by the Department of Economic Planning and Development (JPKE), energy dominates the Brunei Darussalam economy, accounting for more than 60% of Brunei’s GDP and 90.5% of export, providing employment to around 24,000 people.

Providing a Solution for Local Skilled Workers

As the number of locals employed with oil and gas industries were relatively low, and mostly filled by foreigners then, a training model known as Energy Industry Competency Framework (EICF) was introduced in year 2013. The aim is to equip the local workforce with relevant skills to make them more marketable to industries; thereby increasing local employment, specifically in the oil and gas industries.

The Energy Industry Competency Framework

The Energy Sector in the Brunei Economy

Initiated by the Energy & Industry Department (EID), with the collaboration of Ministry of Education (MOE), Institute of Brunei Technical Education (IBTE) with extensive consultation with the Oil & Gas industries, together with funding support from the Department of Economic Planning and Development (JPKE), EICF sets an example of using a ‘Whole of Nation’ approach whereby different ministries and stakeholders both in the government and private sector collaborate together to ensure a constant supply of local skilled workforce in Oil and Gas sectors.

In this approach, the responsibility to reduce unemployment and create employment opportunities are not placed solely on the government. Concerted efforts by all parties in the government, private, non-governmental organizations and jobseekers themselves are required to deal with unemployment.

EICF Programmes in IBTE

IBTE is the main public TVET provider in Brunei Darussalam that provides pre-employment trainings to secondary school leavers. In July 2013, the institution started four programmes (see Figure 1) under EICF.

All programs in this initial phase focus on Oil and Gas sectors for two target groups:

1. HNTec and BMA (Diploma Level 5) - to train students as skilled technicians
2. ISQ and Bridging programs - to train as skilled operators.
**Setting Up EICF Programmes in IBTE**

IBTE with relevant industries are involved in the stages of planning, implementation and evaluation of EICF:

1. Firstly, a need analysis is conducted, collecting feedback from the industries for actual manpower demand.

2. Then, the Programme Development & Evaluation Committee (PDEC), whose members consist of subject-matter experts from industries and teaching professionals from IBTE, will develop a competency-based curriculum.

3. Quota for program enrollment is determined based on industry quantity forecast. After that, IBTE and industries’ representatives are invited to interview and select eligible students.

4. Industries and the training institution (IBTE) work together in conducting the courses.

5. Upon completion of the courses, After-Action-Review (AAR) are conducted to identify what went well, the issues and challenges faced and to develop possible solutions to improve the programs. AAR sessions are participated by both industries and IBTE. (Previously, the curriculum is reviewed only after 5 years).


**Working Towards Increasing Local Employability**

The EICF programs draws the interest of local enrolment through a ‘Conditional Offer of Employment’ (COE) upon successful completion of the training. The COE is arranged by the EICF Team at the Energy and Industry Department, who surveys the needs of industries, coordinates interview sessions and later channel eligible students to suitable vacancies.

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**Figure 1: Four training programme**

**Figure 2: Six steps of setting up EICF**
Industries are confident to provide COE due to the nature of programs run under EICF, being competency-based; with 70% focus on practical and hands on skills and 30% on theory. Students undergo job placement at oil and gas companies which exposes them to the real working environment and enable them to compete in the job market.

**International Accreditation of Programs**

While providing for local employment needs, EICF establishes a standard for quality and certified training through programs recognised by international accreditation bodies; thereby enabling wider employment opportunities globally.

The ISQ programs, for example, are internationally recognised based on the trades; The Welding Institute (TWI) for Welders, Construction Industry Training Board (CITB) for Scaffolders, Lifting Equipment Engineers Association (LEEA) for Riggers and British Gas Approved Scheme (BGAS) for Blaster Painter.

**Successful Implementation**

Based on the Employment Study Report (September 2015 and ES Report 2016) conducted by Research and Statistic Division of IBTE, the employment rate of the first cohort for ISQ and HNTeC was as high as 93.2%. The target number of local hires were met to decrease local unemployment issues.

Due to its success, EICF’s initial 15 programs to cater for needs in the Oil and Gas sector is now replicated across other industries and known as *Industry Competency Framework (ICF)*. In 2018, 32 programs (of 56 IBTE programs) from various industries such as Construction, Hospitality and Tourism, ICT, Engineering, Automotive and Agro-Technology, were absorbed under ICF programs.

IBTE has also initiated the establishment of ‘Industry Steering Committee’ that encompasses the seven clusters; Energy and Engineering, Business and Financial Services; Hospitality and Tourism; Building Construction, Agrotechnology, Info-Communication Technology (ICT) and Maritime. The committee is led by anchor persons in each industrial sector.

This has led to further improvement and strengthening of close cooperation between IBTE and industries, in order to create and implement high quality programmes that truly fulfils the country’s human resource requirement.

![IBTE Central](image1)

![IBTE Satellite](image2)

*Figure 3: EICF program*
Future Outlook

With evidences of increased employment among graduates in IBTE, perception of the society on TVET as the second-class education is eventually transformed. More youths are finding it practical and rewarding to undertake TVET courses now.

Over the years, EICF continues to develop highly skilled, job-ready graduates to meet industry requirements and standards. In year 2018, a mini plant known as the Hands-on Operation Training Skids (HOTS) was successfully set up at the IBTE Jefri Bolkiah Campus with funding and consultation support from various oil and gas operators, consultation firms and service companies.

Conclusion

EICF is one of Brunei’s success stories in the energy sector; being able to increase employability through up-scaling the skills of local youths in the oil and gas industries via a ‘whole of nation’ approach, where coordination between the regulator and industries are in place.

IBTE carry on its mission to achieve Graduate Employment Rate of 80%, six months after graduation, to assist the successful expansion of EICF model to other industries and ensure that the model’s impact reaches beyond the Oil and Gas Industry in Brunei.

References


Further information

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Interview with HNTec1 Trainees

Mohammad Safwan bin Haji Asri
Program: HNTec Electrical Engineering
COE: PTAS Sdn Bhd
Position: Electrical & Instrument Artisan

“I was fascinated by how generators are made hence, with the support that I receive from family, I decided to take a course in Electrical Engineering which happens to be offered by Sekolah Vokasional Nahkoda Ragam (SVNR). At the beginning of the program, I found it quite challenging but interesting as well as it involved more on hands-on training rather than theoretical. Nevertheless, I overcome the challenge by continuously enhancing my skills required by the industry with the help that I received from instructor at SVNR.

It is always beenmy dream to be part of the oil and gas industry, and I am glad to be offered a CEO by PTAS Sdn Bhd that gives me opportunity to expose and enhance my knowledge after completion of my studies in Electrical Engineering. It is also easy to work within the industry but I do believe that with proper knowledge, experience as much as I can and at same time enhancing my skills to contribute back to my company (PTAS Sdn Bhd) and to the nation.

EICF, in my opinion is as good program that are well-thought by relevant parties in catering those unemployed youth and at the same time, preparing them to be skill-ready for the industry once they completed their program. My advice to those youth out there, fully utilize the opportunity given ahead of you and prove to everyone that you are capable in achieving what you wish as long as you have the determination to succeed.”
“Good Practices” are chosen according to selection criteria that have been created by a working group. They aim to serve as benchmarks for transformation towards quality TVET. However, they reflect on the individual circumstances of the submitting country and may only be adopted with context specific modifications.

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