Enhancing Ocean Governance in the Caribbean Region

University of Trinidad and Tobago Maritime Studies Unit

JUNE 29TH – 30TH 2017

Enhancing Ocean Governance in the Caribbean Region Symposium



Managing the Marine Environment through Partnering with Energy Majors

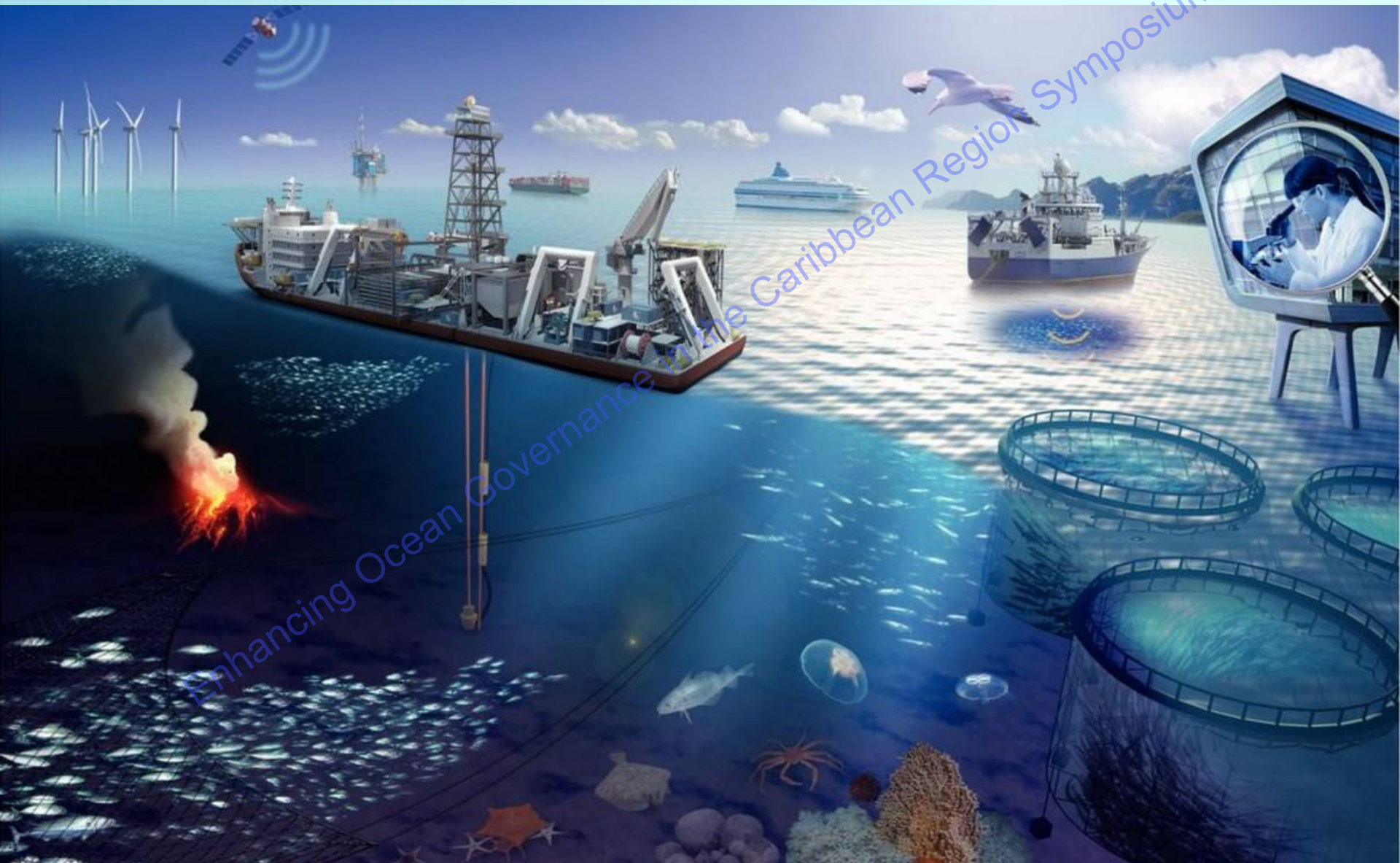
Indira Rampaul-Cheddie
Senior State Counsel
Ministry of Energy and Energy Industries



OCEAN ECONOMY

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THE OCEAN ECONOMY



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THE IMPORTANCE OF OCEANS

OUR WORLD OCEAN
provides

THE AIR WE BREATHE

>50% The ocean produces over half of the world's oxygen and stores 50 times more carbon dioxide than our atmosphere.

CLIMATE REGULATION

70% Covering 70% of the Earth's surface, the ocean transports heat from the equator to the poles, regulating our climate and weather patterns.

TRANSPORTATION

76% Percent of all U.S. trade involving some form of marine transportation.

RECREATION

From fishing to boating to kayaking and whale watching, the ocean provides us with so many unique activities.

ECONOMY

$282 billion Amount the U.S. ocean economy produces in goods and services. Ocean-dependent businesses employ almost 3 million people.

FOOD

The ocean provides much more than just seafood. Ingredients from the sea are found in surprising foods such as peanut butter and soymilk.

MEDICINE

Many medicinal products come from the ocean, including ingredients that help fight cancer, arthritis, Alzheimer's disease, and heart disease.

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SUSTAINABLE DEVELOPMENT

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SUSTAINABLE DEVELOPMENT

Sustainable Development is defined by the World Commission on Environment and Development as a development which meets the "needs of the present without compromising the ability of the future generations to meet their own needs"

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THE UNITED NATIONS DEVELOPMENT PROGRAMME AND THE WORLD ENERGY COUNCIL



Social Development



Economic Development



Environmental Protection

"Energy produced and used in ways that support human development over the long term, in all its Social, Economic and Environmental dimensions"

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FRAMEWORK OF OCEAN GOVERNANCE IN TRINIDAD AND TOBAGO



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LICENCES AND PRODUCTION SHARING CONTRACTS- SELECTED CLAUSES

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OFFSHORE ACTIVITY

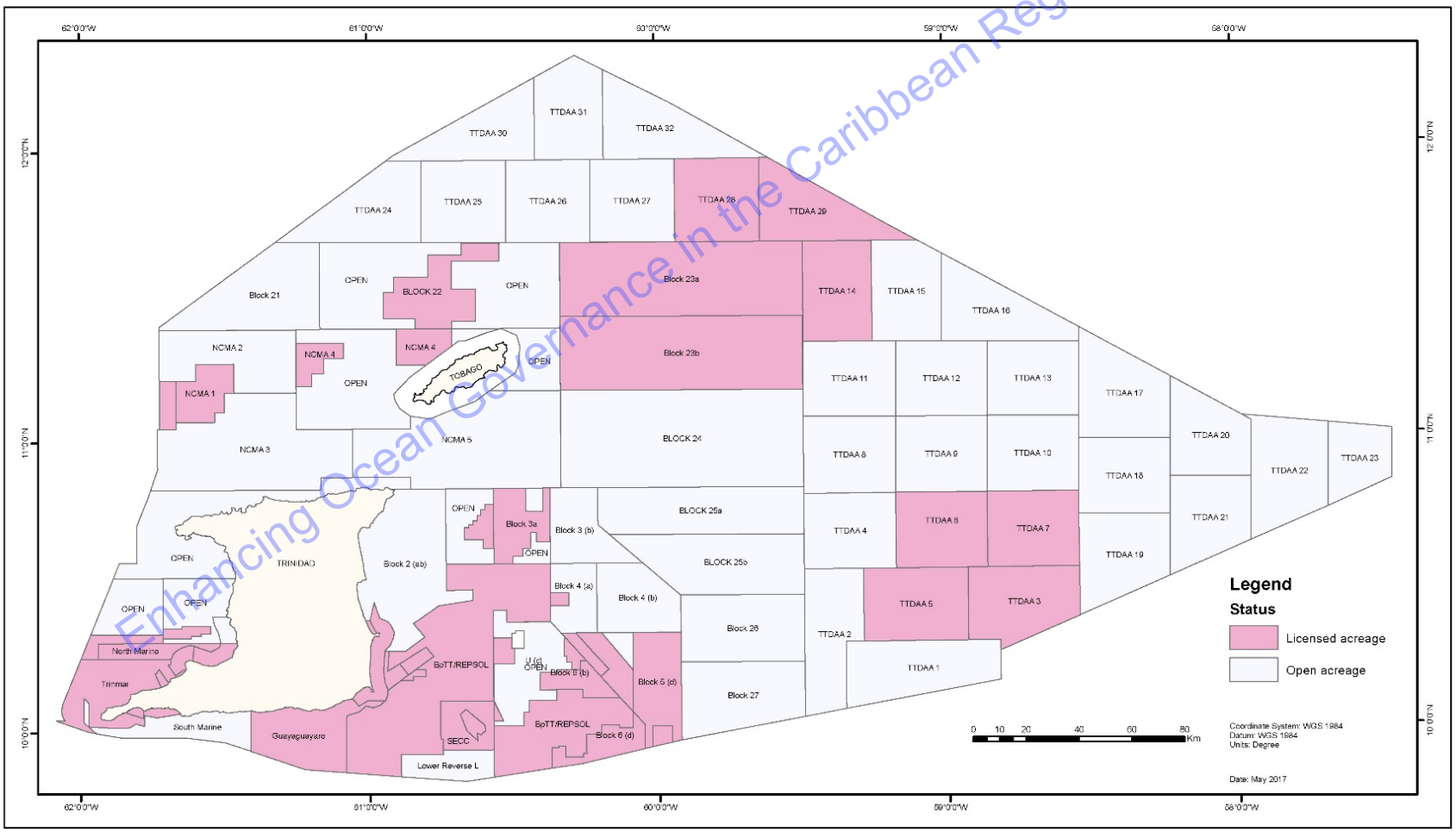
CONCESSIONS	• 21 PSCS AND LICENCES OFFSHORE
OIL	• SOUTH WEST COAST • SOUTH EAST COAST
GAS	• NORTH AND EAST COASTS IN DEPTHS OF LESS THAN 500M

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CURRENT OFFSHORE CONCESSIONS

Government of the Republic of Trinidad and Tobago
MINISTRY OF ENERGY AND ENERGY INDUSTRIES

OFFHSORE UPSTREAM ACTIVITY MAP 2017



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PETROLEUM ACT, CH. 62:01

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SECTION 6 OF THE PETROLEUM ACT :



"no person shall engage in petroleum operations on land or in a submarine area, unless he first obtains a licence as provided for in this Act or the Regulations."

Provides For The Issue Of A Production Sharing Contract In Lieu Of An Exploration And Production (Public Petroleum Rights) Licence

Allows The Production Sharing Contract To Conflict With The Act

TYPES OF OFFSHORE CONCESSIONS

The Exploration (Public Petroleum Rights) Licence

- Grants the licensee the non-exclusive right to carry out exploration operations

The Exploration and Production (Private Petroleum Rights) Licence

- Grants the licensee the exclusive right to explore for, produce and dispose of petroleum – pays royalty to government on production

Production Sharing Contract

- Grants the right to conduct petroleum operations in exchange for the opportunity to recover its costs and a specified profit

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THE MAJOR OBJECTIVES



Facilitate the exploration and development of petroleum resources in shortest possible time;



Provide government with a fair share of income from the operations;



Provide a reasonable rate of return to the oil company, taking into account geological, geographic and other risks;



Provide an incentive to industry to evaluate petroleum potential of the country



Ensure that operations have as little as possible impact on the environment

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ENVIRONMENTAL REMEDIATION



Stipulated environmental bonus



On-going obligation to implement an agreed programme of environmental remediation in the area of operation



Annual programme of environmental remediation submitted for approval

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ESCROW ACCOUNT

Interest bearing escrow account in the name of the Minister



Remediation of pollution



Eventual abandonment of wells



Decommissioning of facilities

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ESCROW ACCOUNT



.25USD per barrel of oil equivalent paid into account



Maintained at level considered adequate by the Minister or Licence/PSC may be revoked

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ACCESSING ESCROW ACCOUNT

The Minister may at his sole discretion access account if Licensee fails to effect environmental clean-up, or properly abandon wells, or decommission facilities to satisfaction of Minister

Where the Minister accesses the escrow account the Licensee shall pay the sum used within 60 days

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ABANDONMENT PROVISION



Within 60 days after cessation of production or relinquishment of some or all of the Contract Area



All installations that Minister elects not to have delivered up



Sound and current international Petroleum industry practices

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PSC – PRICE/ PRODUCTION MATRIX

	Price Classes			
Production Tiers	A	B	C	D
	$0 to $20	> $20 to $30	> $30 to $40	> $40
0 to 10,000 B/D	%	%	%	%
10,000 to 25,000 B/D	%	%	%	%
25,000 to 50,000 B/D	%	%	%	%
50,000 to 75,000 B/D	%	%	%	%
above 75,000 B/D	%	%	%	%

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TERM



- **OBJECTIVES OF THE GOVERNMENT**
  - **Avoid company keeping idle acreage**
  - **Ensure maximum returns**

OBJECTIVES OF CONTRACTOR

Term must be long enough to recover initial capital investment & operating costs and make profit

Contractors prefer longer terms but with voluntary abandonment allowed

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RELINQUISHMENTS - PSCs

1995 MODEL

- At least **25%** not later than the end of the first phase
- At least **50%** (inclusive of areas previously relinquished) not later than the end of the second phase
- Most of Contract Area no later than the end of the Exploration Period (certain exceptions apply)

2006 MODEL

- At least **40%** not later than the end of the first phase
- At least **50%** (inclusive of areas previously relinquished) not later than the end of the second phase
- Most of Contract Area no later than the end of the Exploration Period (different exceptions apply)

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MINIMUM WORK PROGRAMME



The minimum work program represents the minimum exploration activities that the Contractor must do during the Exploration Phase. MWP is bid by the company.



Company has to find a balance between reducing upfront risk in a capital intensive investment and doing enough exploration to win bid and lead to a commercial discovery



Minimum expenditure obligation can be stipulated

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GUARANTEES TO BE PROVIDED BY THE CONTRACTOR

Parent Company Guarantees

vs. Bank Guarantees



Guarantees of Minimum Work Obligations



Guarantees of Other Obligations



Guarantees by Parent Company of Technical and Financial Support

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ASSIGNMENT AND TRANSFER

SOME ISSUES SURROUNDING ASSIGNMENT/TRANSFER:



Additional value generated from an assignment or transfer should be captured



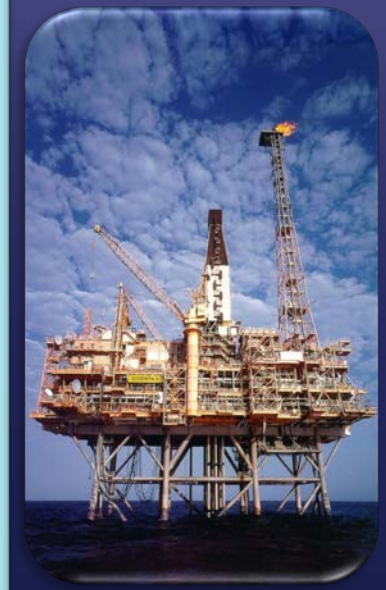
Use of change in control to circumvent requirement of Government approval



Companies want freedom to assign, Governments want a final say

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CONCEPT OF TRANSFER



PERMISSION OF MINISTER REQUIRED FOR ANY TRANSFER

- **TRANSFER DEFINED AS INCLUDING:**
  - **For Privately traded company:** sale, merger, consolidation, reorganization or liquidation or any change in ownership or voting rights in a company or legal entity

  - **For Publicly traded company:** any transfer of a controlling interest of the voting shares of any entity comprising Contractor by sale, merger, consolidation, reorganization or liquidation

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ASSIGNMENT/TRANSFER FEE



FEE STRUCTURE:

For every dollar of the first US$100 million: 1%
For every dollar of the next US$100 million: 1.5%
For every dollar thereafter: 2%

TRANSACTION VALUATION:

CONTRACTOR'S SUBMISSIONS

INDEPENDENT VALUATION BY CONSULTANT HIRED BY MINISTER

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INCENTIVES

Discount of 20% on Base SPT Rates:



Mature Marine Field is defined as a field that is 25 years or more from date of first commercial production



Small Marine Oil Field is defined as field with production of less than 1,500 bopd



N.B. Companies can only apply for one of these discounts

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PSC CO-ORDINATION COMMITTEE



Four members, two appointed by Minister and two by company



"to assist Contractor … by providing a forum for continuous dialogue and flow of information between Contractor and Minister regarding Contractor's planned activities and progress"

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PSC CO-ORDINATION COMMITTEE



Reviews proposals for revisions to agreed Work Programmes and budgets



Evaluates Contractor's progress wrt Work Programmes, budgets, local content initiatives



Meets quarterly but special meetings may be called

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SOME MEEI APPROVALS REQUIRED

DRILLING	ASSESSMENT PLAN	OIL SPILL/FIRE CONTINGENCY PLAN	APPRAISAL PROGRAMME
RELINQUISHING ACREAGE	DEVELOPMENT PLAN	COMMERCIAL DECLARATION	FIELD DEFINITION
ABANDONMENT PLAN	ANNUAL WORK PROGRAMME AND BUDGET	MARKETING OF NATURAL GAS	FLARING OF NATURAL GAS

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COMPETITIVE BIDDING ROUNDS

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COMPETITIVE BIDDING ROUNDS



USED AS A MECHANISM TO AWARD NEW BLOCKS FOR EXPLORATION AND PRODUCTION



STRUCTURED SO AS TO GET MAXIMUM WORK PROGRAMME AND FINANCIAL COMMITMENTS



EVALUATION PROCESS ENSURES TRANSPARENCY AND NOT MUCH ROOM FOR DISCRETION

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EVERY BID SHALL BE ACCOMPANIED BY:



Technical capacity, competence and experience in petroleum operations and related activities



Corporate and financial structure and backing of the bidder(s)



A signed declaration indicating that the Model PSC has been examined and the terms agreed to

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BIDDABLE ITEMS:



A commitment to a work programme, which represents best efforts to explore the contract area based on the technical evaluation of the block



Proposals for the sharing of petroleum produced based on the price/ production matrix

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TRANSPARENT EVALUATION PROCESS



PUBLIC BID OPENING CEREMONY



EVALUATION OF FINANCIAL AND TECHNICAL COMPETENCE OF BIDDER BY COMMITTEE



POINT SYSTEM TO EVALUATE THE COMMERCIAL BID AND WORK PROGRAMME

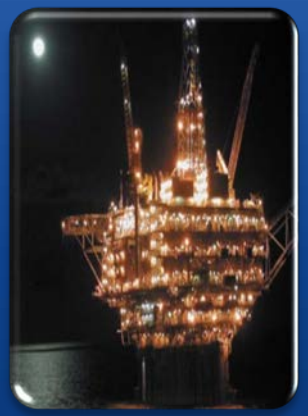
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MULTI CLIENT SEISMIC CONTRACTS

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MULTI-CLIENT SEISMIC CONTRACTS



The objective of these agreements is the acquisition of seismic surveys in prospective areas.

The Agreement usually establishes a basis for co-operation between the Ministry and the seismic company on the marketing of seismic data arising out of the Project.

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HOW THEY WORK

The seismic company is responsible for the day-to-day management, supervision and co-ordination of the preparation, compilation and marketing of the Seismic Data

The Ministry agrees to grant an exclusive right to the seismic company to sell non-exclusive licences to use the Seismic Data to licensees in consideration of and a sharing of the income derived from the sale in the manner

The seismic company ensures that each licensee of the Seismic Data executes a licence agreement defining the conditions for use of the Seismic Data

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HOW THEY WORK

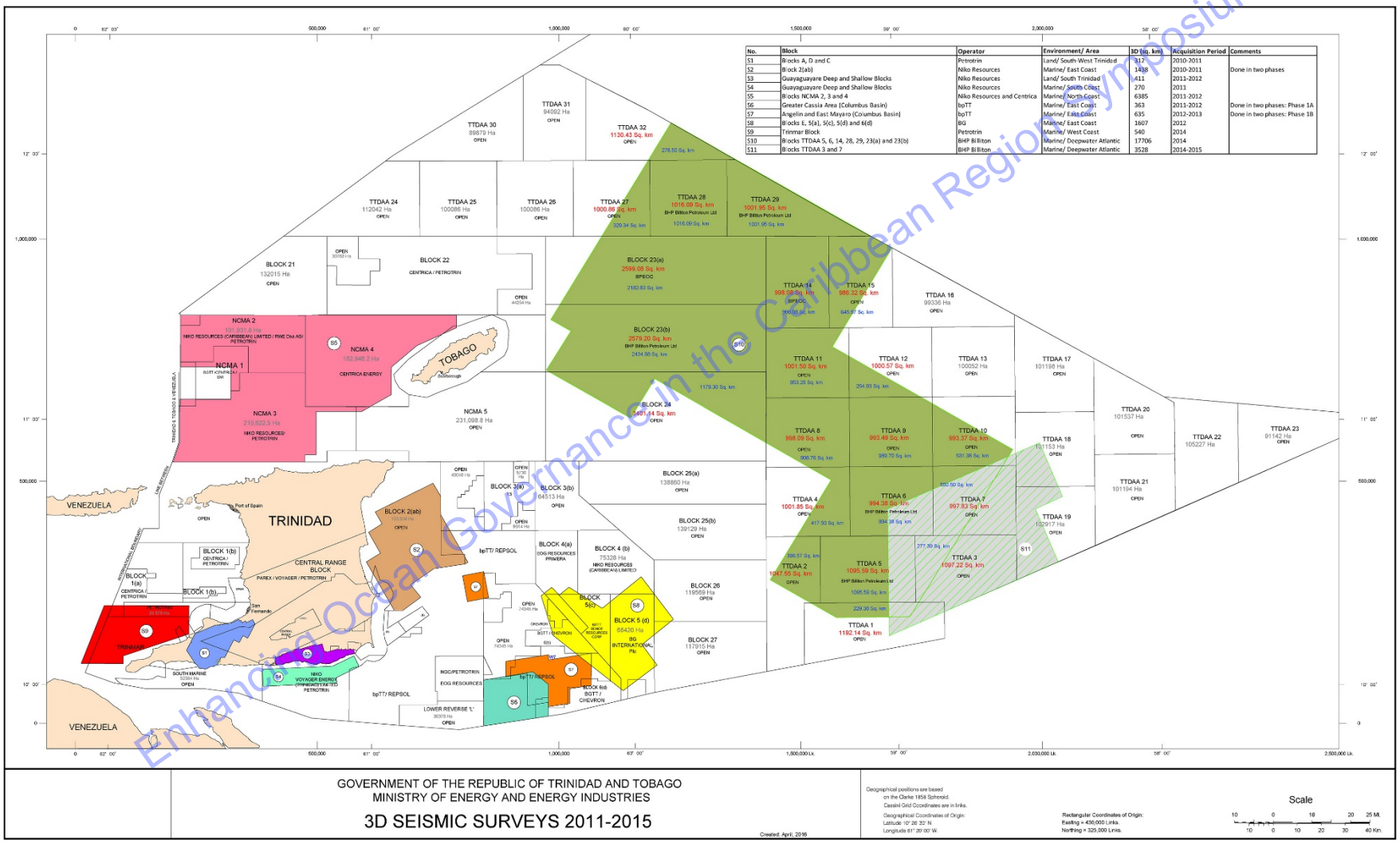
The seismic company furnishes and maintains at its sole cost, risk and expenses all personnel, equipment, supplies and services necessary for the performance of the survey.

The seismic company is responsible for raising finance to carry out the survey, and the survey is performed without cost or expense to the Ministry.

The Ministry's financial responsibility is limited to the payment of salaries for the Ministry's personnel who are involved in co-ordination activities with The seismic company.

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SEISMIC ACQUISITION



No.	Block	Operator	Environment/ Area	3D (sq. km)	Acquisition Period	Comments
S1	Blocks A, D and C	Petrotrin	Land/ South-West Trinidad	417	2010-2011	
S2	Block 2(ab)	Niko Resources	Marine/ East Coast	1438	2010-2011	Done in two phases
S3	Guayaguayare Deep and Shallow Blocks	Niko Resources	Land/ South Trinidad	411	2011-2012	
S4	Guayaguayare Deep and Shallow Blocks	Niko Resources	Marine/ South Coast	270	2011	
S5	Blocks NCMA 2, 3 and 4	Niko Resources and Centrica	Marine/ North Coast	6385	2011-2012	
S6	Greater Cassia Area (Columbus Basin)	bpTT	Marine/ East Coast	363	2011-2012	Done in two phases: Phase 1A
S7	Angelin and East Mayaro (Columbus Basin)	bpTT	Marine/ East Coast	635	2012-2013	Done in two phases: Phase 1B
S8	Blocks E, 5(a), 5(c), 5(d) and 6(d)	BG	Marine/ East Coast	1607	2012	
S9	Trinmar Block	Petrotrin	Marine/ West Coast	540	2014	
S10	Blocks TTDAA 5, 6, 14, 28, 29, 23(a) and 23(b)	BHP Billiton	Marine/ Deepwater Atlantic	17706	2014	
S11	Blocks TTDAA 3 and 7	BHP Billiton	Marine/ Deepwater Atlantic	3528	2014-2015	

BENEFITS TO THE COUNTRY

Acquisition of seismic at no cost to the country

Reduces the risk of exploration drilling – companies more willing to bid drilling work programmes if there is existing seismic

MEEI earns money from licensing of data

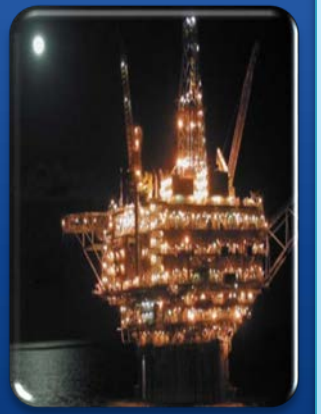
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STATE COMPANY PARTICIPATION

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DIRECT STATE PARTICIPATION

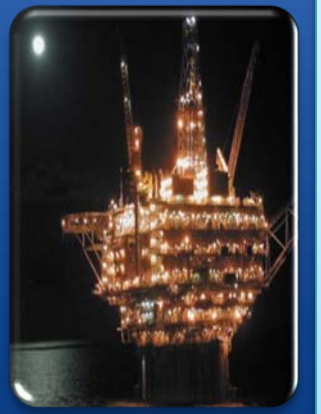


State participation is often achieved through using the national oil company, PETROTRIN, which is given a mandatory carried interest in the exploration operations.

This carry has ranged from 10- 20%.

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THE PETROLEUM REGULATIONS (TRINIDAD ONSHORE COMPETITIVE BIDDING) ORDER, 2013



"The Petroleum Company of Trinidad and Tobago shall have a twenty (20) percent Participating Interest under a Joint Operating Agreement and shall be carried for one hundred percent (100%) of the costs for the Minimum Work Obligations…"

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PETROTRIN'S PARTICIPATION

PETROTRIN pays in accordance with its participating interest a portion of the development costs but is carried for exploration costs

Usually a full carry as opposed to a partial carry or paid back carry

Even though carried, PETROTRIN still has a vote on the operating committee regarding exploration operations

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ADVANTAGES OF STATE PARTICIPATION

State company ensures sustainable development

State company seeks country's interest

State company gains experience so it can one day bid for blocks on its own in Trinidad and other countries

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NATIONAL FACILITIES AUDIT

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NATIONAL FACILITIES AUDIT



Objectives :- ASSESSMENT OF RISKS TO LIFE AND ENVIRONMENT



To determine the current status of mechanical integrity of existing facilities



To evaluate integrity management practices relative to accepted industry standards, codes and practices



To determine status of HSE management policies, procedures and practices



To evaluate HSE management policies, procedures and practices relative to accepted industry standards, codes and practices

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What is Asset Integrity Management?

AI =

Technical Integrity is the "Management of Hardware Barriers"

Process Safety is the "Management of Hazards to Prevent Major Accidents"

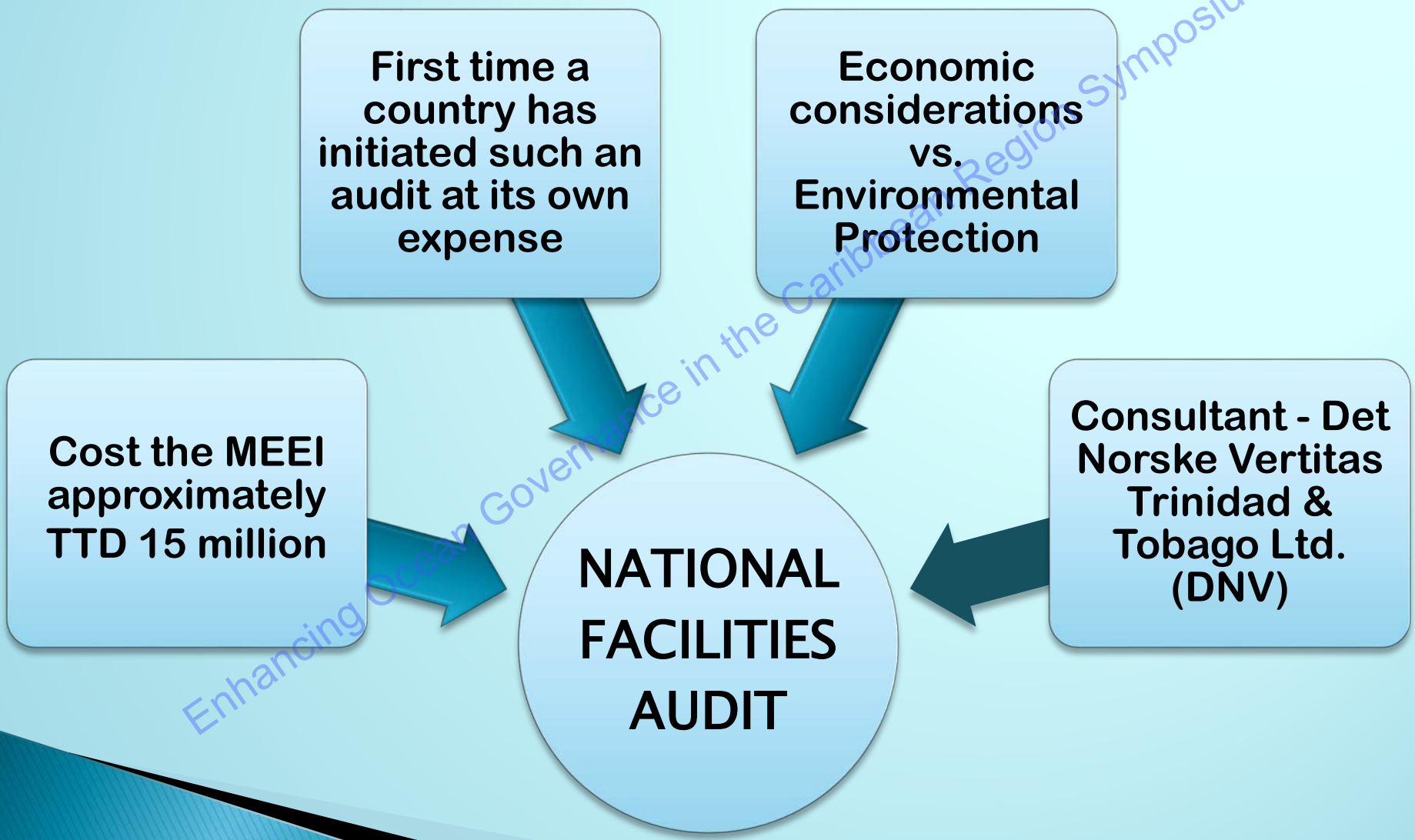
When done together, it is referred to as:

Asset Integrity Management

– the ability of an asset to perform its required function efficiently while safeguarding life and the environment.

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LAND MARK AUDIT



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1-week audit process

AI-1 Self Audit (prior to visits)

* Prior to On-Site Audit
- Completed by CORE TEAM

* Asset Register

* Integrity Management Plan

AI-1 On-Site Audit
AI-2 Equipment Audit
(2-days)

* At Company's Offices
- DNV GL auditors
- MEEI staff
- Company CORE TEAM

* Questions/Answers

* Scoring 0 to 4

Physical Inspection (1-day)

* Walk-Through Selected Asset(s)
- DNV GL auditors
- MEEI staff
- Site Manager / Operator

* Visual Inspection
- Guided by AI-2 Results

* Document Observations

2-week audit process

AI-1 Self Audit (prior to visits)

* Prior to On-Site Audit
- Completed by CORE TEAM

* Asset Register

* Integrity Management Plan

AI-1 On-Site Audit
AI-2 Equipment Audit
(4-days)

* At Company's Offices
- DNV GL auditors
- MEEI staff
- Company CORE TEAM

* Questions/Answers

* Scoring 0 to 4

Physical Inspection (2-days)

* Walk-Through Selected Asset(s)
- DNV GL auditors
- MEEI staff
- Site Manager / Operator

* Visual Inspection
- Guided by AI-2 Results

* Document Observations

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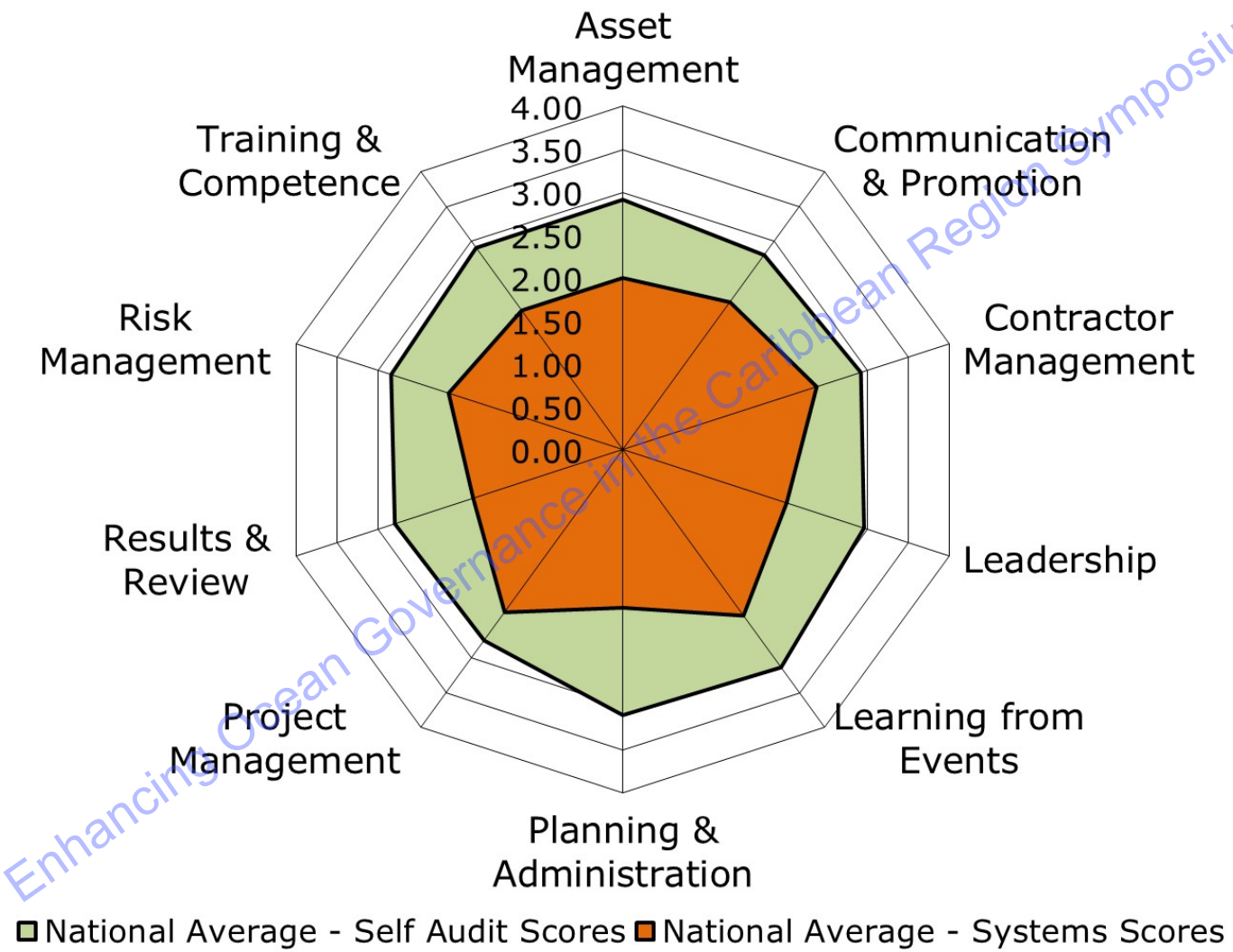
Scoring System

4 = Optimizing	The activity or practices is effective and efficient. Visible continuous improvement culture/efforts in place.
3 = Managing	The activity or practice is documented and effectively implemented.
2 = Implementing	The activity or practice is documented with implementation ongoing, but not fully mature.
1 = Developing	The activity or practice exists, though may be incomplete and undocumented.
0 = Learning	The activity or practice is absent or ad-hoc and little awareness of the expectation is in place.

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** Note that the auditors scored to 0.5 point increments*

Self Audits vs. System Audits



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ACTION FROM FACILITIES AUDIT



All Companies have been given their reports for free



Workshop held by DNV this year for Energy companies to discuss the way forward



DNV has made itself available for free to give presentations to the individual companies on their report

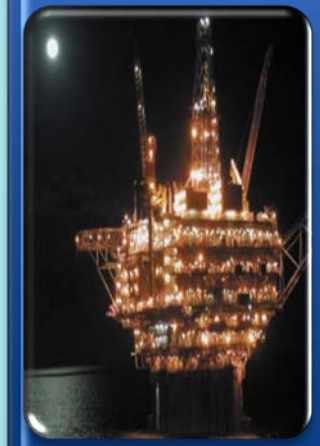
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NATIONAL OIL SPILL CONTINGENCY PLAN

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THE NATIONAL OIL SPILL CONTINGENCY PLAN - OBJECTIVE



To **preserve and protect human health and the natural environment** from the ever-present risk of oil and chemical spills be posed by energy and associated energy operations both on land and offshore, including vessels, platforms, pipelines, ports and oil handling facilities by **effective preparation for combating oil pollution incidents** and ensuring that appropriate measures are taken in accordance with all relevant Local Legislation, Regulations and Standards, best industry practices and all relevant International Conventions acceded to, ratified or entered into force by GORTT.

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COMPANY INVOLVEMENT

Energy Companies were part of the Cabinet Appointed Committee to develop the NOSCP

All Licences and PSCs executed after 2013 have a requirement of compliance with NOSCP

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SPILL CLASSIFICATIONS

Tier 1 (T1) Spills

Small local oil spills where in-house response capability is adequate

Tier 2 (T2) Spills

Medium-sized spills that can significantly impact the vicinity and an Area or National support for adequate spill response is required

Tier 3 (T3) Spills

Large spills requiring substantial resources and support from Regional or International spill co-operatives to mitigate effects perceived to be wide-reaching, i.e., of regional or international significance

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PROVISIONS OF THE NOSCP

Mandates that entities requiring the approval of the Ministry of Energy and Energy Affairs to undertake oil and gas operations, including but not limited to, oil, gas, petrochemical, storage and bunkering operations, must have the ability to manage their own Tier 1 spills and participate in a Tier 2 Oil Spill Response Organization with the assistance of the Ministry and Energy and Energy Industries to mount an effective Area and National Oil Spill Response. Must obtain membership with a suitable Tier 3 oil spill equipment cooperative that can mobilize equipment into the country within at least 24 – 48 hours.

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STATUS

The companies have not formed the Tier 2 Oil Spill Response Organization

The NOSCP has been activated with some success since its inception in cases of oil spills – Chaguanas –December 2016; Guapo river – April 2016; Venezuela – April 2017; MP6 Tank Leak – 2014; La Brea Oil Spill – December 2013

The plan is currently being renegotiated in a low oil price environment

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THANKS FOR LISTENING. ANY QUESTIONS?

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