

# ESTIMATING LOCAL CONTENT IN THE ENERGY SECTOR IN TRINIDAD & TOBAGO

*A CASE STUDY OF NGC PIPELINE PROJECTS*



# PRESENTATION OUTLINE

- About NGC
- Research Problem
- Definition of Local Content
- Literature Review
- Methodology
- Results and Data Analysis
- Limitations
- Conclusions



## ABOUT NGC

- NGC buys, sells and transports natural gas to local downstream industrial and commercial customers
- Its gross revenue accounts for a large part of GDP- (10% of GDP in 2010)
- NGC's subsidiaries include the National Energy Corporation and Phoenix Park Gas Processers Ltd.
- Current asset base = TT\$28 Bn or US\$4.4Bn

# RESEARCH PROBLEM



**“What is the quantum of local value added generated from NGC pipeline projects?”**



## 4 PIPELINE PROJECTS

1. Union Pipeline Project ( TT\$ 208 million)
2. Liquid Fuels Pipeline Project (LFP) (TT\$ 749.8 million)
3. North Eastern Offshore Project (NEO) (TT\$ 3.2 billion)
4. Tobago Pipeline Project (TT\$1.1 billion)



## DEFINITION OF LOCAL CONTENT

- “income received by locals, revenues accrued by owners of land and resources and income streams to local shareholders and creditors” – Anthony Paul 2011
- “the share of national industrial participation in supplying goods and services for a specific project”  
*(Programa de Mobilização da Indústria de Petróleo e Gás Natural)*



# LITERATURE REVIEW

- Trinidad and Tobago's Local Content Experience suggests that local content is not new to T&T
- Many countries of the world are more advanced than Trinidad and Tobago as it relates to measuring local content
- There are common phases/ activities involved in pipeline construction



## LITERATURE REVIEW (CONT'D)

- There are several economic benefits of implementing local content policy ( e.g. builds local technological capability, reduces outflows of factor incomes and helps to achieve SHD)
- Obstacles to local content development.
  - A lack of expertise
  - The absence of local content regulation.
  - Use of foreign contractors
- There are implications of international trade and investment treaties on local content measures.





# MEASURING LOCAL CONTENT

## 1. Brazil's Local Content Primer

- **% LC in Goods =  $(1 - X/Y) \cdot 100$**

- **% LC in Services =  $ILS = (X/Y) \cdot 100$**

## 2. Uniform Methodology of Calculating Kazakhstan Local Content

- **% LC in Goods =  $(ST \cdot K) / S \cdot 100\%$**

- **% LC in Services =  $[\sum ST \cdot K + \sum (SD - CT - CSD) \cdot R] / S \cdot 100\%$**

## 3. BP Migas Procurement Rules PTK007

- **Divide the cost of the local components by the total cost**

## 4. Identifying Local Content from imported goods (the built-up and built-down methods)



# METHODOLOGY

## 5 Main Assumptions

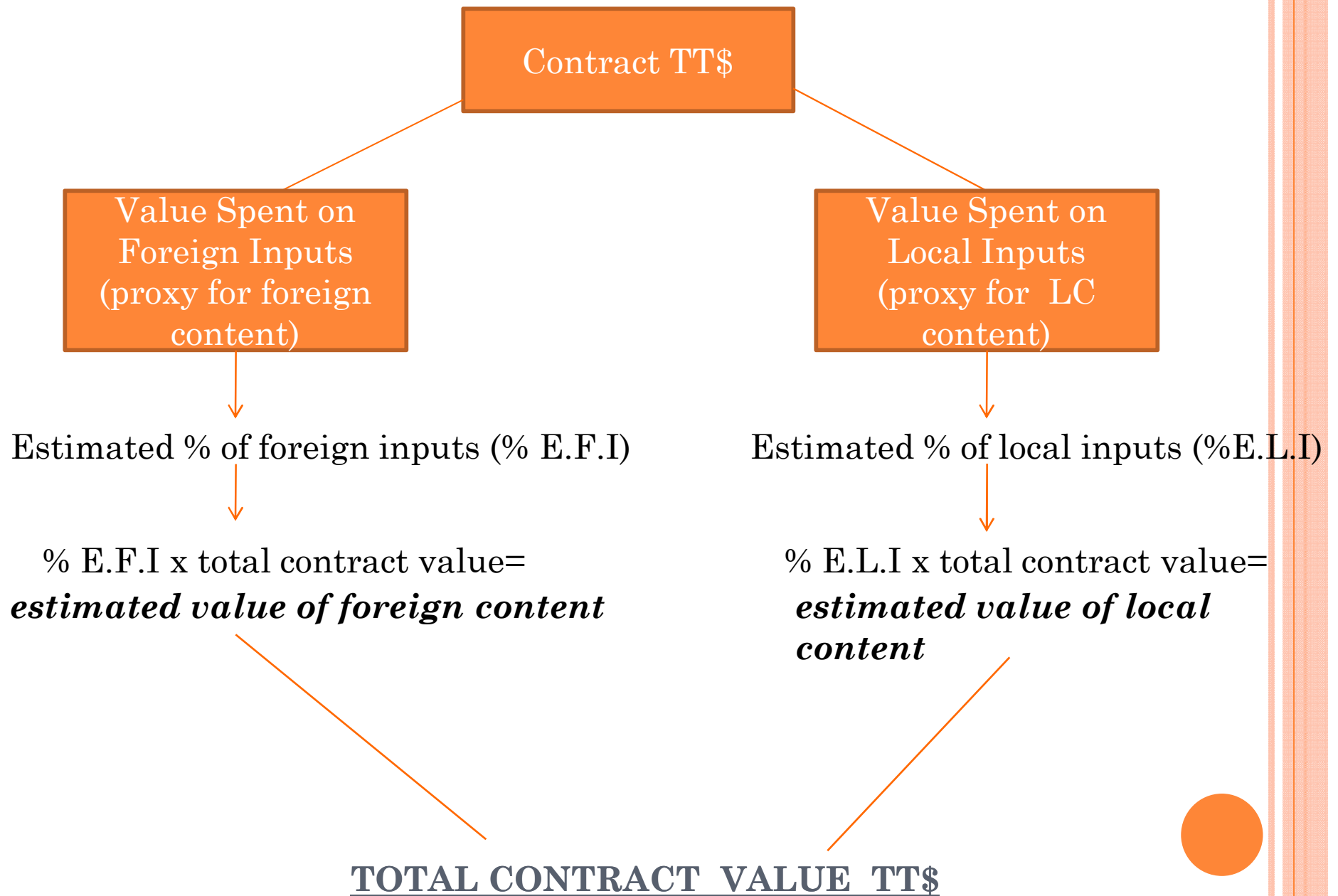
- The sum of the values of the local inputs employed within each contracts is a meaningful proxy for measuring local content/ local value added.
- A good or service is defined as ‘local’ (a) once it is wholly produced in-country (b) in instances where the product is imported only the portion of value added which was created using local inputs will be considered.
- A “built-down” method was used to separate the value of foreign content from local content, in which foreign content was identified and then subtracted from the total to obtain the value of local content.



## METHODOLOGY (CONT'D)

4. The preferred unit of measurement is the dollar value (\$TT dollars) of the local inputs used in the project. A conversion rate of TT\$ 6.29: US\$ 1 was applied to contract values quoted in US dollars.
5. The value of the contracts used to estimate local value added in this paper is based on the actual amount spent on the contract rather than the budgeted figure.





## RESULTS & DATA ANALYSIS

1. Total amount spent on all 4 projects was approximately TT\$5.3 billion
2. LC= approx. 18% ; FC= approx 82%
3. The total capital expenditure of these 4 projects represents 4% of GDP (2010) and approximately 11% of the energy sector's contribution
4. The total level of foreign content was skewed by the huge foreign expenditure on the NEO

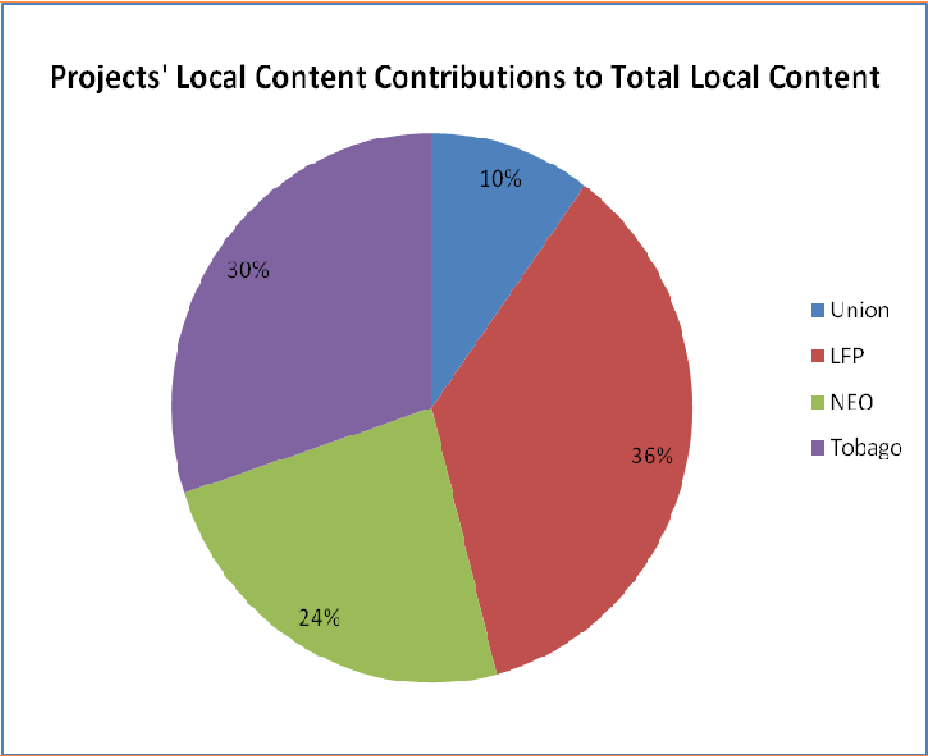


## RESULTS & DATA ANALYSIS (CONT'D)

5. The offshore projects were the most expensive:
  - NEO= TT\$ 3.2 billion (62% of Total Cost) ;
  - Tobago= TT\$ 1.1 billion (20% of Total Cost)
6. Offshore projects required more expertise than onshore projects
7. If the cost pipe supply is excluded, local content potentially increases to 61%.



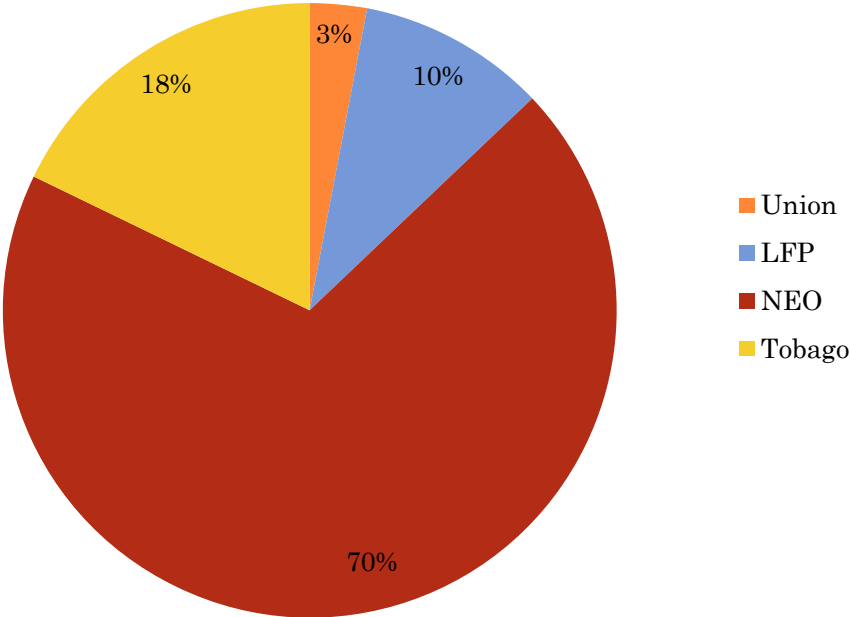
# MAIN CONTRIBUTORS TO LOCAL CONTENT



Main Areas
Civil and Mechanical Works
Construction and Construction Supervision
Certified Verification Services
Surveying
Project Management
Environmental Studies



# MAIN CONTRIBUTORS TO FC



5 Main Areas	
Pipe supply	43%
Subsea Construction	33%
Equipment	8%
HDD( Offshore)	7%
Design (Engineering)	7%





## LIMITATIONS

1. Not many variables could have been considered. Other possible variables which may have been included are the cost of local labour, local equipment and materials used for works.
2. Poor responses to the contractor survey inhibited a deeper understanding of the nature of the local capability and constraints.
3. The absence of the value of project management services provided by NGC suggests that local content is underreported



# CONCLUSIONS

1. There are valuable services which are typically imported by NGC in its pipeline projects, which are potential areas for development. These are : Engineering Design, HDD services (offshore), Subsea construction services
2. NGC and Local firms have capability in project management onshore pipeline installation, civil and mechanical works, environmental studies, surveying, and certified verification services. These areas of expertise may be exported to emerging gas markets such as Tanzania and Ghana.
3. There are gaps which need to be filled by NGC and the energy sector, which may allow for higher levels of local content to be captured (e.g. the lack of monitoring systems for technology transfer and the absence of specific targets for local content development)





**THANK YOU!**