

Revenue Management Conference
Frontiers of Development:
The Hydrocarbon Industry in Trinidad and Tobago
Panel Discussion
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New Frontiers for Downstream Gas Development

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Presentation Outline

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- Overview of National Energy Corporation of Trinidad & Tobago
 - Global Forecasts
 - Natural Gas Utilisation
 - NEC's Project Portfolio
 - Key Focus Industries
 - Strengths-Weaknesses-Opportunities- Threats
 - Future Energy Based Projects
 - Additional Thoughts



NEC's Current Mandate

- The conceptualization, promotion, development and facilitation of new energy-based and downstream industries in Trinidad and Tobago

- Identifying and developing new industrial estates

- Identifying and developing new industrial deep water ports to facilitate these estates

- Own and operate marine and other infrastructural assets to facilitate all gas-based petrochemical and metal plants

- Development and Management of La Brea Industrial Estate

- Towage and Harbour operations

- Sustainable management of the environment





Some Global Forecasts

Unconventional gas such as shale gas anticipated to transform global gas markets. Impact already felt in the LNG markets and are forecasted to continue.

Major gas producers such as those in the Middle East and Russia will be exploring different options for their natural gas in sectors such as chemicals, petrochemicals, liquid fuels and power production.

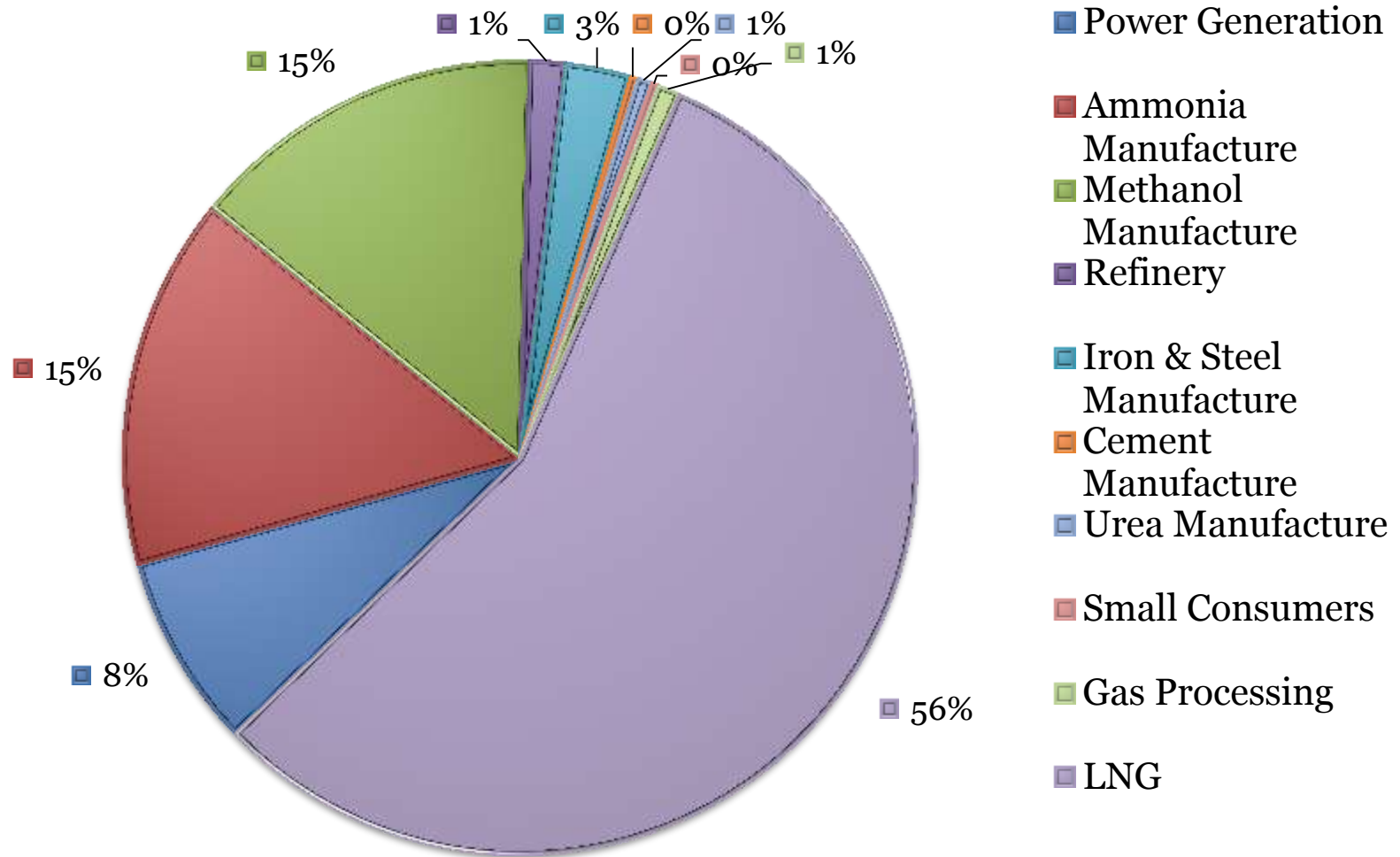
USA petrochemical sectors significantly benefitting from the large shale gas productions. The low cost feedstock compared with feedstocks such as Naphtha has resulted in petrochemicals being more efficiently produced.



.... Threaten our Energy Leadership Position

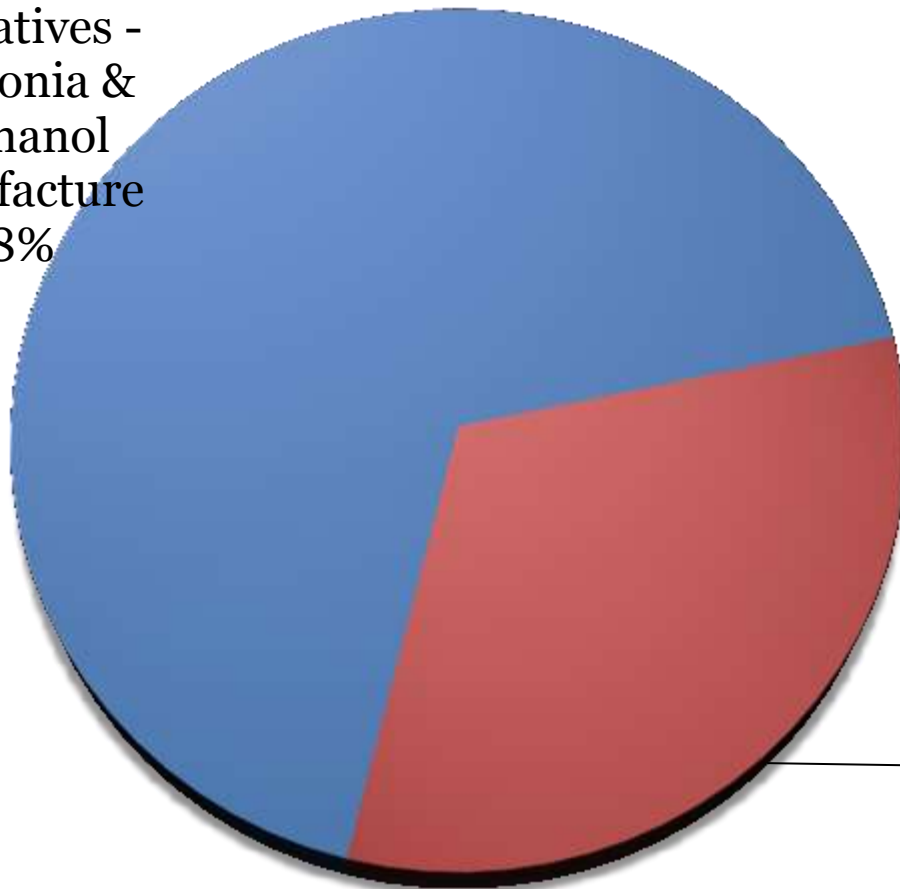


..and possibly competitiveness in Natural Gas Utilisation



...and even the utilisation within the domestic subsector

Primary
Derivatives -
Ammonia &
Methanol
Manufacture
68%



- Primary Derivatives - Ammonia & Methanol Manufacture
- Secondary Derivatives: Small Consumers/ Iron & Steel Manufacture etc.

Secondary
Derivatives:
Small
Consumers/
Iron & Steel
Manufacture
etc.
32%

A Strategic response to revenue management

.... Extracting more from the gas value chain....



NEC's Project Portfolio Matrix

Africa and
Guyanas
Initiatives

**NATURAL
GAS**

Expansion
opportunities

Methane
[C₁]

LNG

Methanol

Ammonia

Acetic Acid

Formaldehyde

Methyl Methacrylate

Polyolefins

Ethane
[C₂]

Ethylene

Polyethylene

Ethylene Glycol

Propane
[C₃]

Propylene

Polypropylene

Propylene Oxide

Butane
[C₄]

N-Butane

Maleic Anhydride

Natural Gas
[C₁+]

Electricity

Inorganic Chemicals

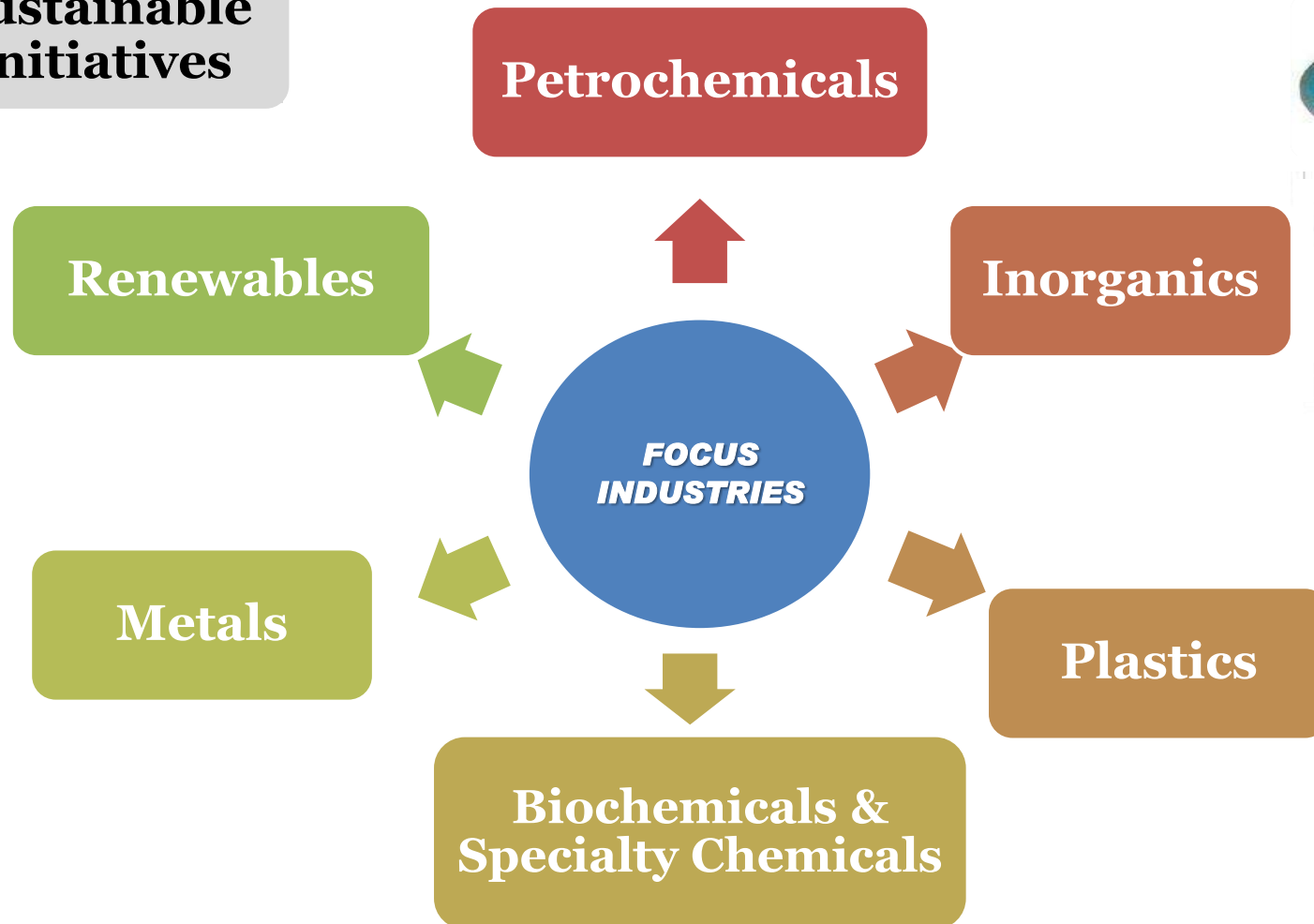
HBI/Metals

Renewables



Key Focus Industries

**Sustainable
Initiatives**



What can we leverage ? Of what must we be aware ?



A Peek into the future for Energy Based Projects



Existing Framework

• Downstream Petrochemical

- Plastics Industry
- Metals processing
- Creation of downstream manufacturing opportunities



New Framework (Innovation)

• Specialty Chemicals.

- Inorganic Chemicals.
- Food Chemicals.
- Biochemical Products.
- Alternative & Renewable Energy
- Expertise global - Guyana; French Guiana, Suriname, Africa



LNG Strategy

Mid-Scale LNG Solutions

- Floating LNG

Some Food for Thought...



Is there an optimal mix of projects that can provide the best added value for natural gas (jobs, revenue, downstream manufacturing potential, support industries, etc.)?



What can be done to encourage innovation and research and development within the sector?



Do we have the requisite skill sets for a successful venture into these new frontiers?



How can we enable local manufactures to successfully compete in today's highly competitive market?



Thank You!



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