Mid-Year Energy Sector Review

For the first half of 2014, Trinidad and Tobago's energy sector experienced continued growth in drilling and rig activity while minor gas supply interruptions impacted on LNG and petrochemical production. This follows a three year trend where upstream activity –both exploration and development – has outpaced downstream activity even as the country's major gas producers perform maintenance. While in 2014 there has been less time spent on maintenance, security of supply is still an issue for the mid and downstream sectors.

For the past six years there has also been a dearth of downstream plant construction projects. Work on Caribbean Gas Chemicals Limited's methanol to DME project – the country's first downstream plant in over six years - has been delayed until the start of 2015. The project will be been a welcome fillip to companies in the downstream energy services sector who have had limited opportunities over the past few years.

While the second half of 2014 will not see major downstream project construction activity, several policy initiatives will likely address the sector's future development. Public consultations on Government's national energy policy are carded to take place before year's end and the new natural gas master plan should also be near completion by the end of the year. These two policy frameworks will inform how the country sustains the energy industry over the medium and long term.

What the Numbers Say: A Statistical Snapshot of Energy Sector Activity in 2014

The following data provides a snapshot of leading energy sector activity indicators for the first half of 2014:

Chart 1 – Exploration and Development Wells 2001-2014

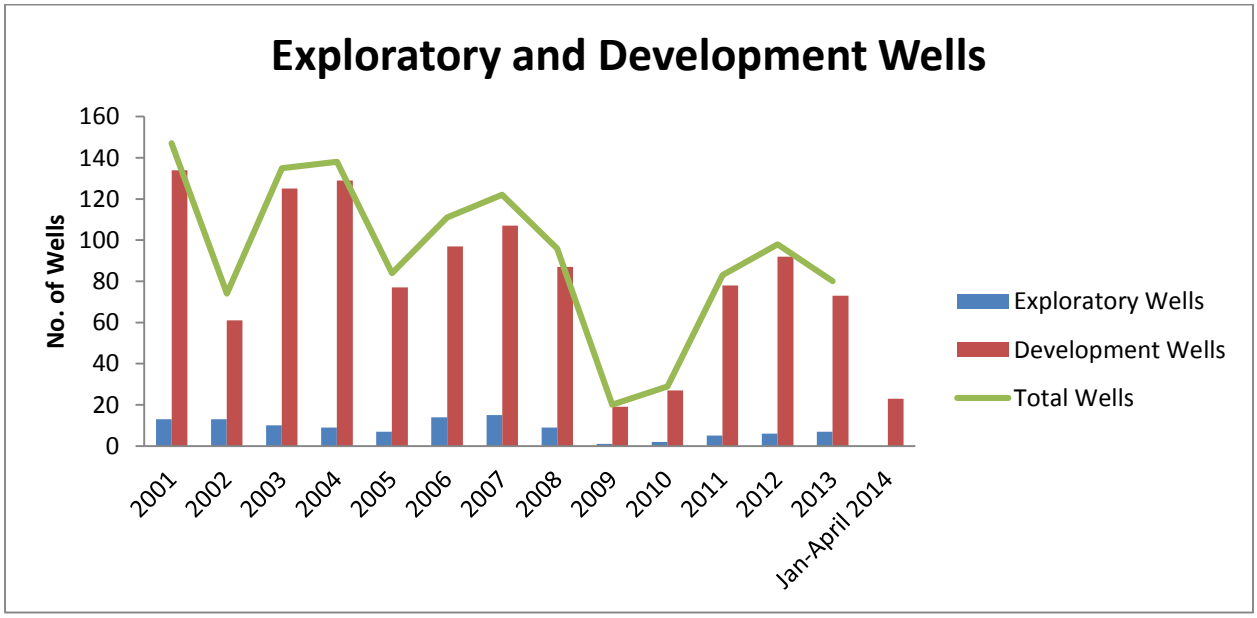
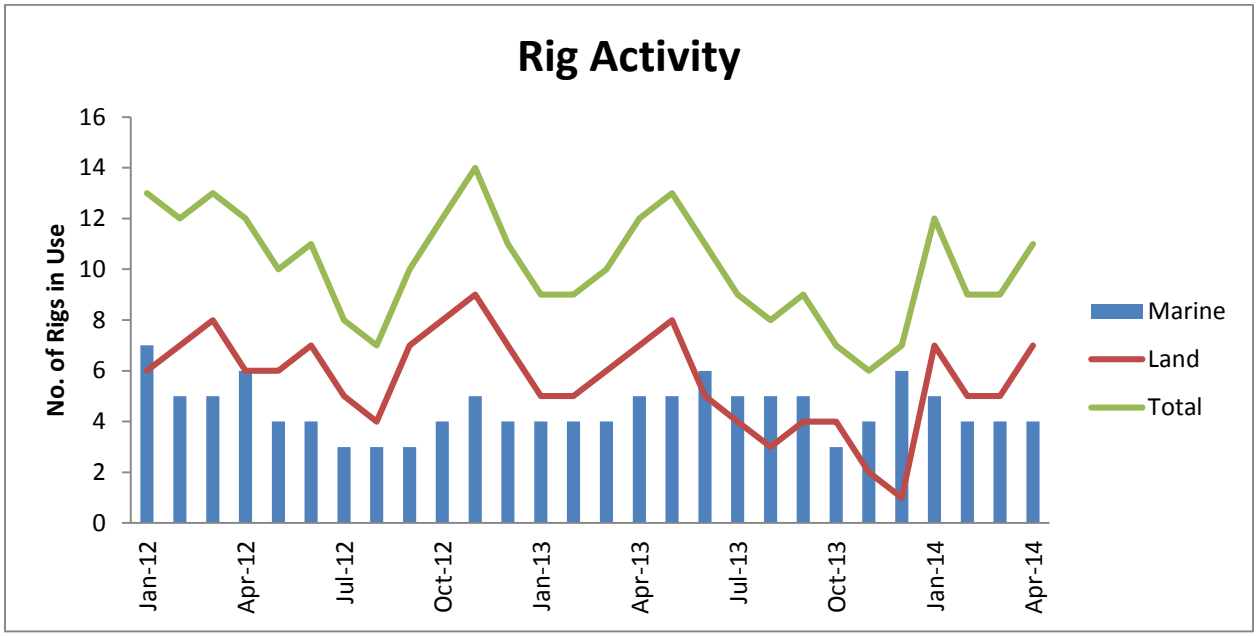


Chart 2: Rig Activity 2012-2014



Based on data from the Ministry of Energy and Energy Affairs, upstream activity continues to experience growth in 2014. From January to April 2014, companies drilled 105,093 feet while for all of 2013 companies drilled 355,642 feet. Up to April, there have also been 25 wells started with two exploration wells spudded in Repsol's Teak field and Parex's Cory Moruga field (See Chart 1).

Another indicator of upstream buoyancy is rig activity and 11 rigs were deployed in April, a two rig increase compared to March. Land-based rigs accounted for the overall increase with seven onshore rigs in use compared to 5 in March. In both March and April there were 4 offshore rigs deployed (see Chart 2).

While these statistics are promising, continuing to encourage upstream investment in Trinidad and Tobago is key to adding to our reserves base. Earlier this year, Government received three bids on the six blocks offered in the latest deepwater bid round. BHP Billiton and BG Group submitted joint bids for Trinidad and Tobago Deep Atlantic Area 3 (TTDAA(3)) and TTDAA(7), while Repsol submitted a bid for Block TTDAA(3). The two blocks are next to each other, and next to two of BHP Billiton's deep water blocks acquired in 2013. In the past two years the country has signed six production sharing contracts for its deepwater acreage. However, after the lukewarm response to this bid round, Minister of Energy and Energy Affairs Kevin Ramnarine confirmed that there would be a two year hold on offering more acreage while the Ministry carries out further surveys.

Chart 3: Gas Production2012-2014

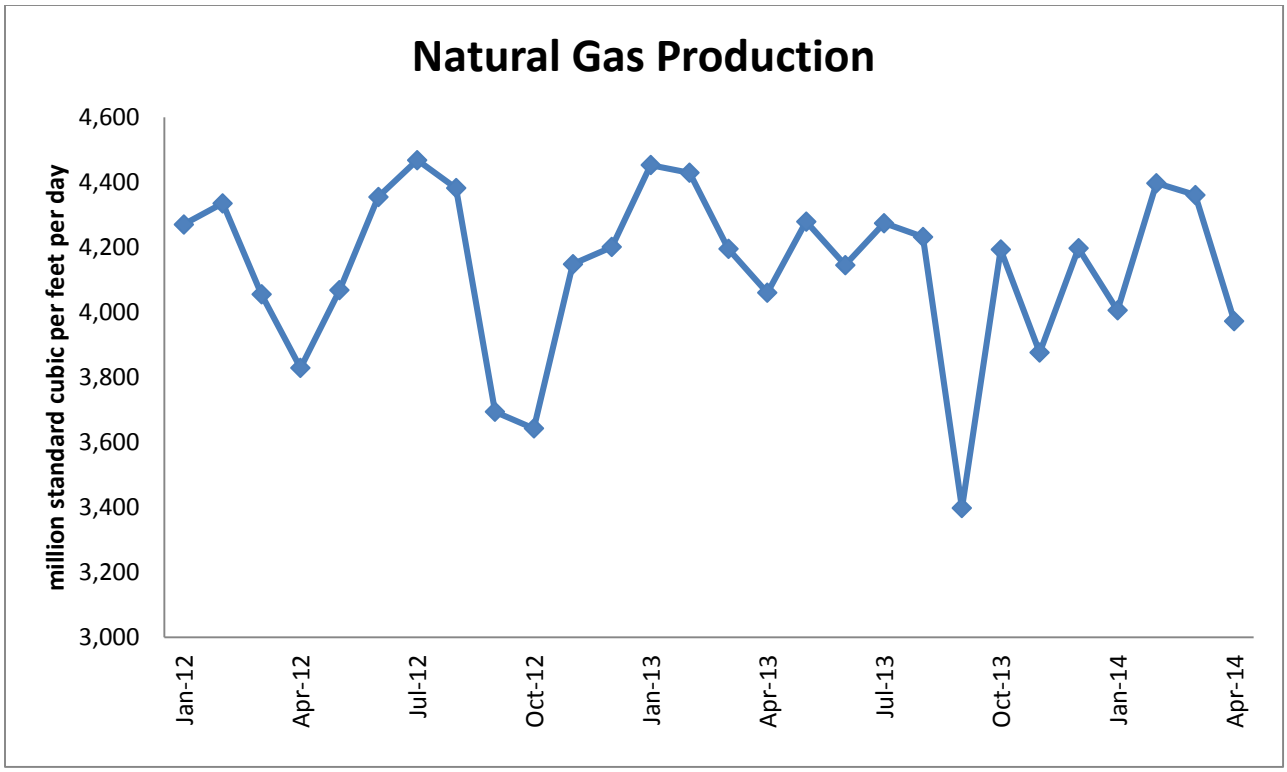
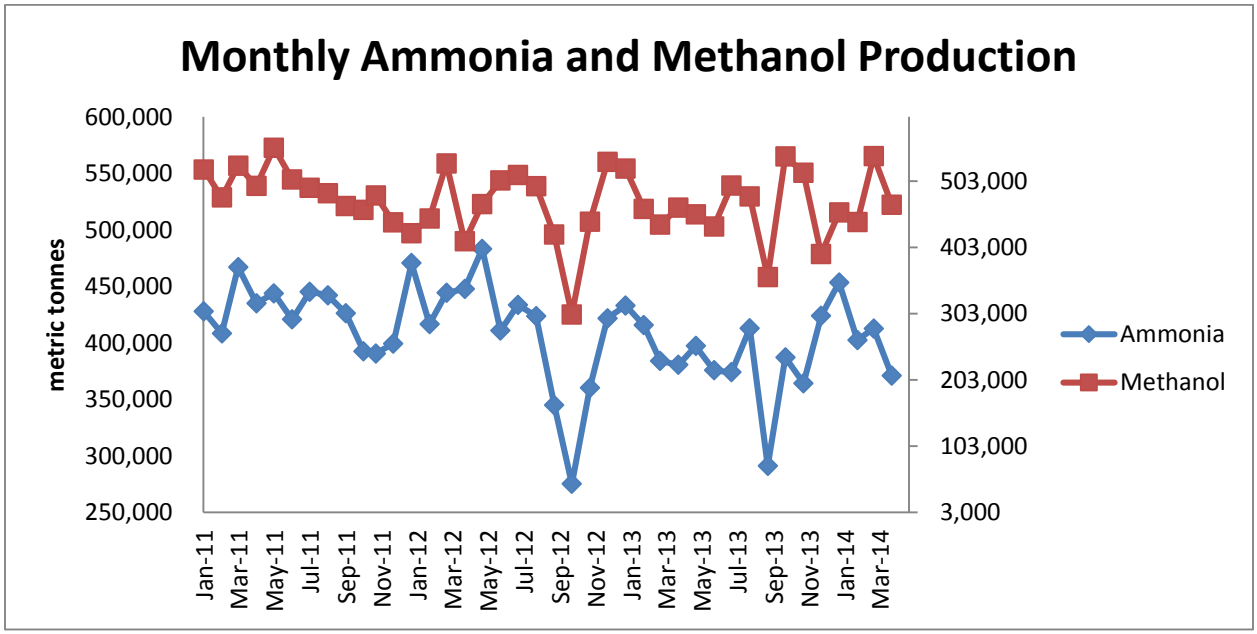


Chart 4: Methanol and Ammonia Production 2011-2014

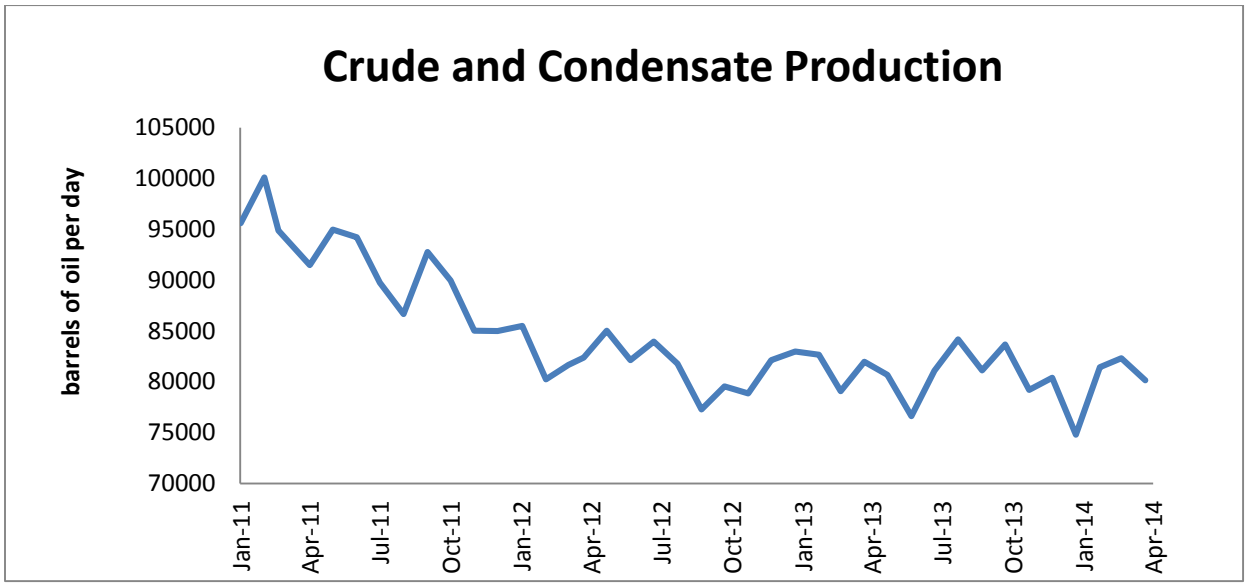


For the past three years, due to maintenance work by the major gas producers, there has been fluctuation in gas and petrochemical production. In the second half of 2013, the energy sector witnessed an unprecedented period of coordinated maintenance work with the major midstream and downstream

companies scaling back on production to oversee repairs on their plants. While the gas supply constraints have eased, in 2014, there is still evidence that both gas and petrochemical production continues to fluctuate.

In 2014, natural gas production fell from 4392 mmscf/d in February to 3973 mmscf/d in April as a result of BG Trinidad and Tobago's reducing its production to facilitate its Starfish development (see Chart 3). As expected, the production of ammonia and methanol moved with the unstable gas supply. Ammonia production fell from 453, 424 metric tonnes (mt) in January 2014 – the highest production figure since May 2012 - to 402,422 mt in February and declined further in April to 370,888 mt (see Chart 4). Similarly methanol production fell from 540,565 mt in March to 467,306 mt in April 2014 with both the Atlas and M5000 plants seeing significant production curtailments.

Chart 5: Crude Oil and Condensate Production 2011-2014

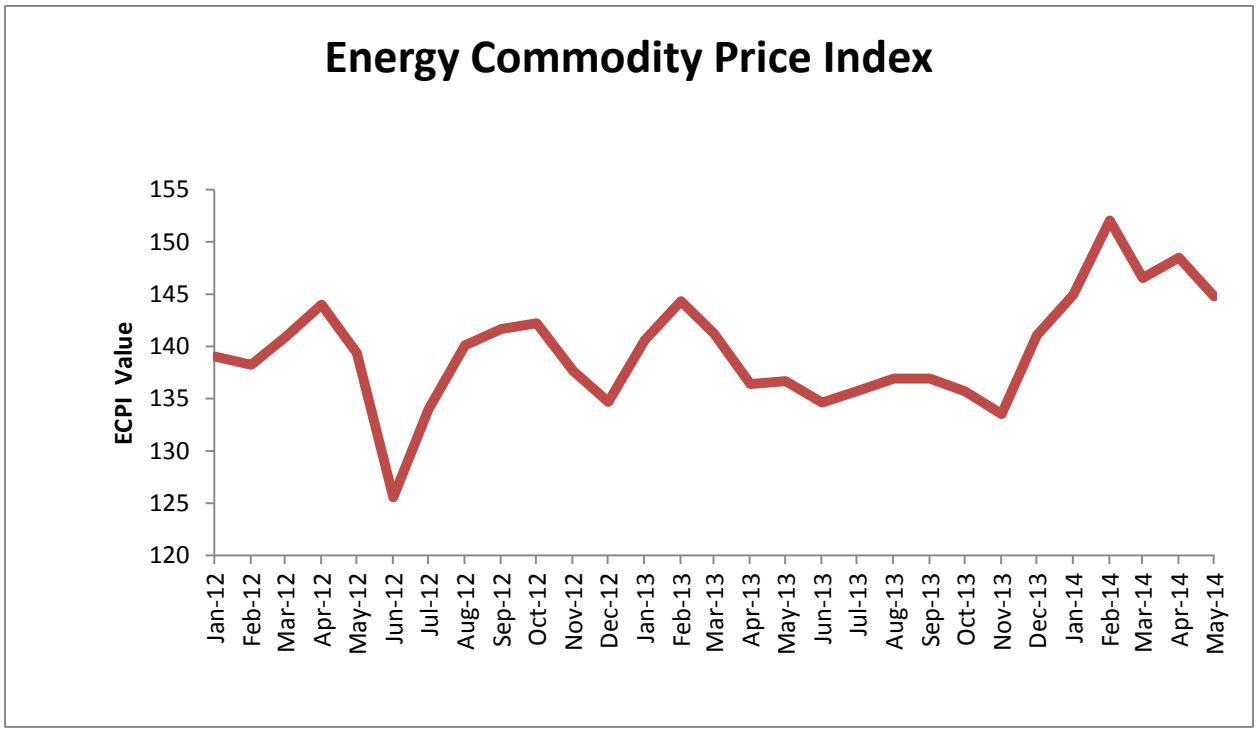


In 2014, the year started with the level of crude and condensate production continuing to show little evidence of increasing production despite all the increased activity. Production in January was just below 75,000 barrels of oil per day (bopd). However, by April production climbed to just over 80,000 bopd. While oil production has stabilized, output is still historically low which speaks to a need for continued and increasing levels of new investment.

Earlier this year, Touchstone Exploration, Range Resources and Lease Operators Limited were the winning bidders in the country's first onshore bid round in over a decade. According to the Ministry of Energy, when the licences for this acreage are signed 295 line kilometres of 2D seismic and 60 square kilometres of 3D will be acquired. It is also estimated that the cost of this exploration phase will be around US$55 million and the possible investment arising out of the development-related investment

could be at most US$945million. Oil production is important for Petrotrin's refinery profitability as well since local equity crude is used as feedstock for the refinery.

Chart 6: Energy Commodity Price Index 2012-2014



The Energy Commodity Price Index (ECPI) is a useful tool to help track the price movement of the country's top ten energy-based commodity exports and for the first half of 2014 the majority of energy commodity prices increased year-on-year. For the first five months of 2014 the ECPI gained by 8 percentage points when compared to 2013. The May 2014 ECPI value was 144.8 compared to 136.6 in May 2013. This increase was spurred by higher Henry Hub prices, oil and methanol prices. Henry Hub prices in 2014 averaged almost $5 per million British thermal unit compared to $3.73 per mmbtu in 2013. Methanol prices also grew to highs in 2014, averaging $596 per metric tonne, almost $90 more per metric tonne than average 2013 prices. Globally, geopolitical forces affected price movements as supply disruptions, due to conflict, was a recurring trend. Along with other phenomena such as unpredictable weather patterns and global economic growth, Trinidad and Tobago's energy commodity prices benefited.

The ECPI, a collaborative effort between the Central Bank of Trinidad and Tobago and the Energy Chamber, is a summary measure of the price movement of Trinidad and Tobago's top ten energy-based commodity exports, weighted by each commodity's relative share of its value. The index is weighted by each commodity's relative share of its value. The commodities and their weights are: US natural gas (40%); Oil (16.6%); Ammonia (11.8%); Methanol (9.4%); Diesel (7%); Motor gasoline (4.3%); Natural gasoline (3.5%); Jet fuel (2.7%); Propane (2.4%); and Urea (2.3%).

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