



## Interactions between gas and electricity markets

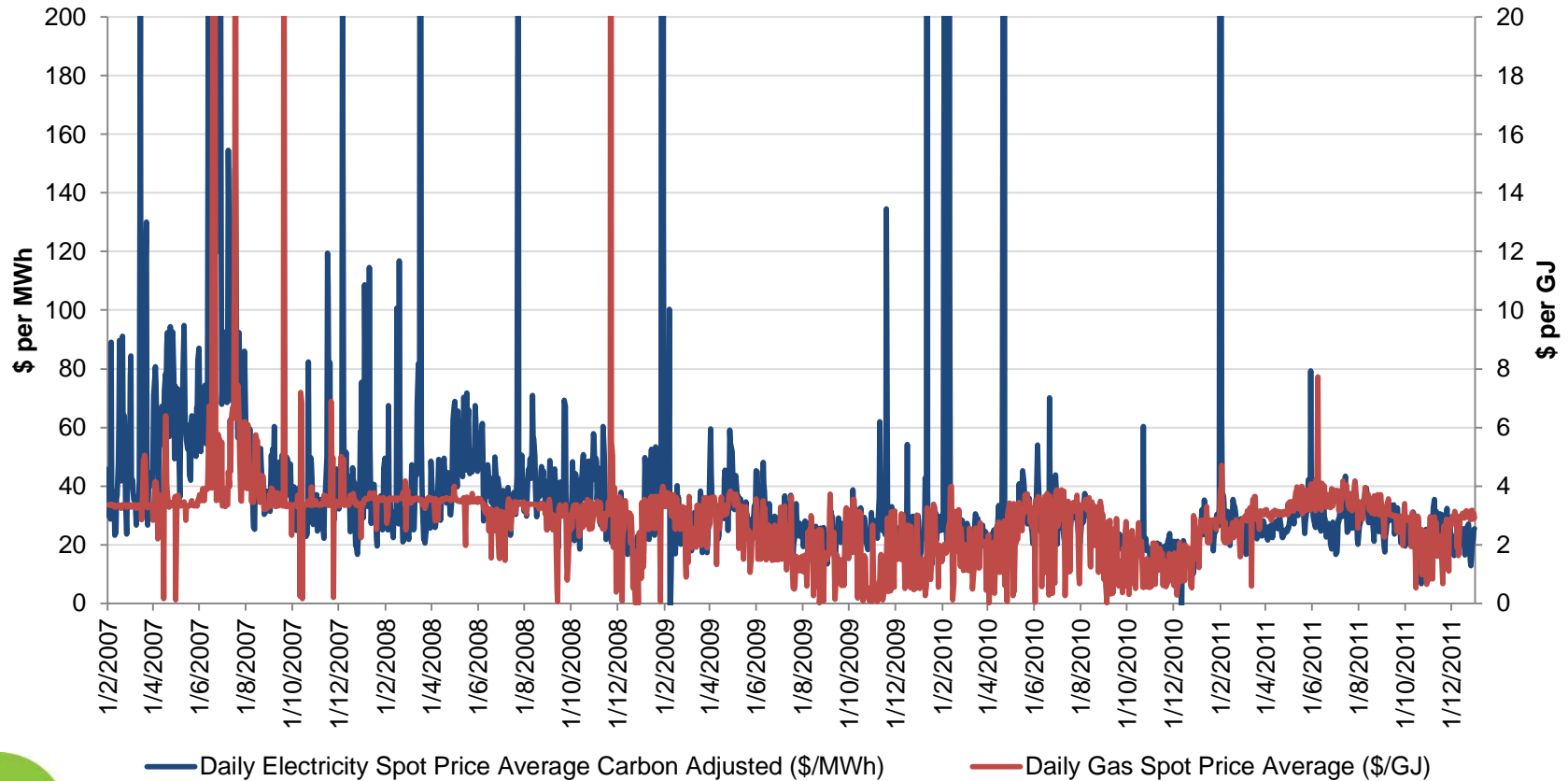
Mark Collette

August 2012

# Electricity and gas – interdependent?

Electricity and gas prices have been more closely related over the last few years as the gas market has matured and gas-fired electricity generation has increased.

## Electricity & Gas Price Interdependence in Victoria 2007 - 2011

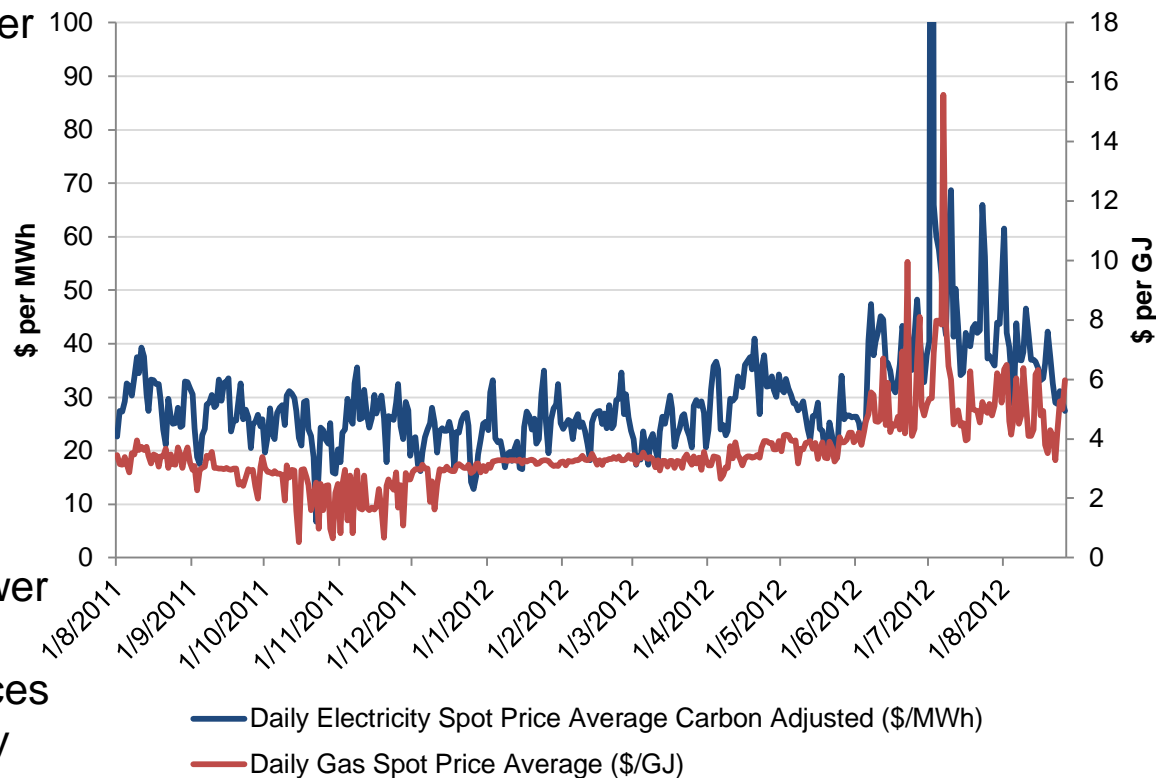


# Electricity and gas – interdependent?

Since the introduction of carbon pricing on 1 July 2012, electricity and gas prices appear to be even more interdependent.

- The Treasury modelling anticipated higher carbon prices and potentially lower gas prices.
- The expectation was that electricity would largely shadow price gas.
- Demand for gas-fired electricity generation was also expected to be a significant source of gas demand.
- However, with weak demand for electricity, lower carbon prices and potentially higher gas prices this interdependence may reduce.

## Electricity & Gas Price Interdependence in Victoria

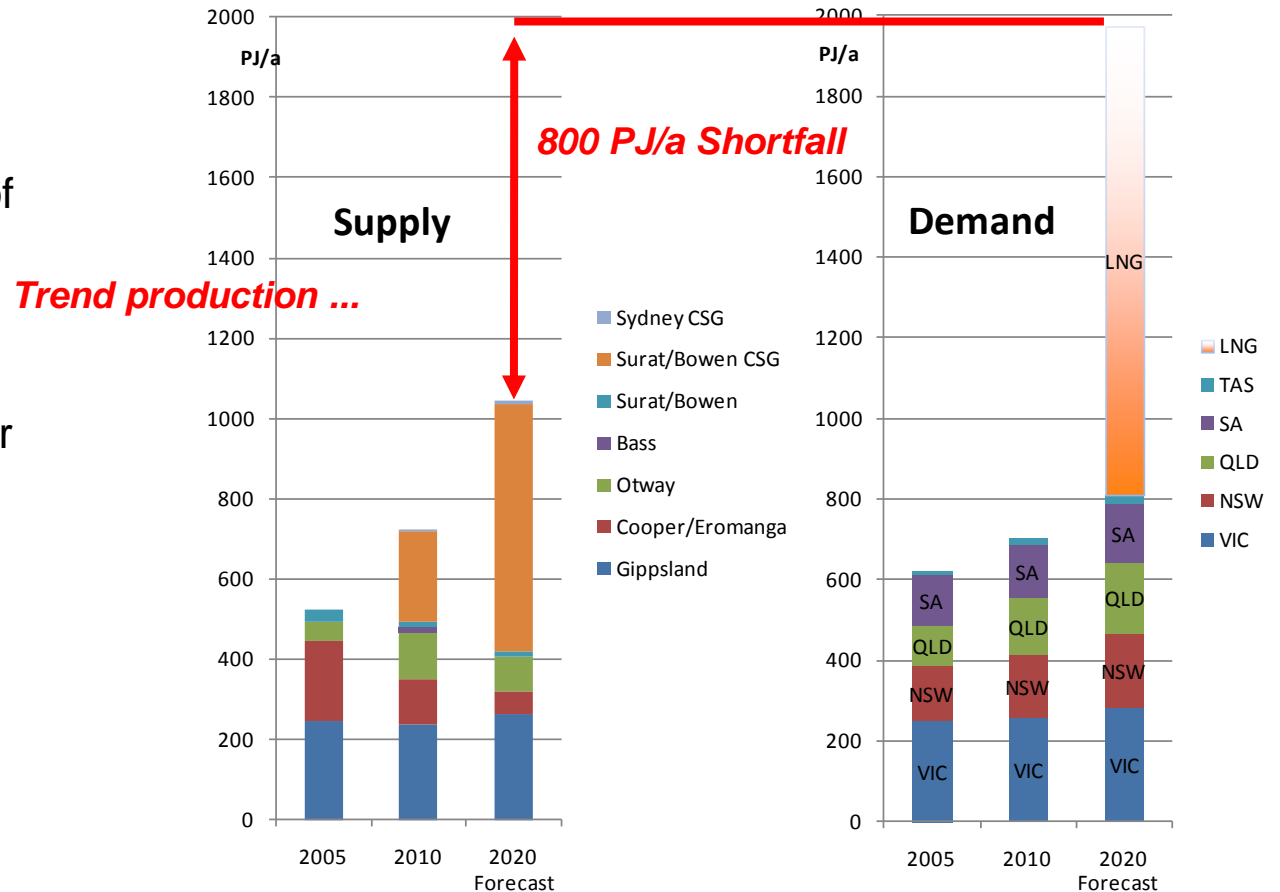


# Changing nature of eastern Australia's gas market

The dynamics of eastern Australia's gas market are changing rapidly and it is critical that supply is able to respond flexibly to changing market conditions.

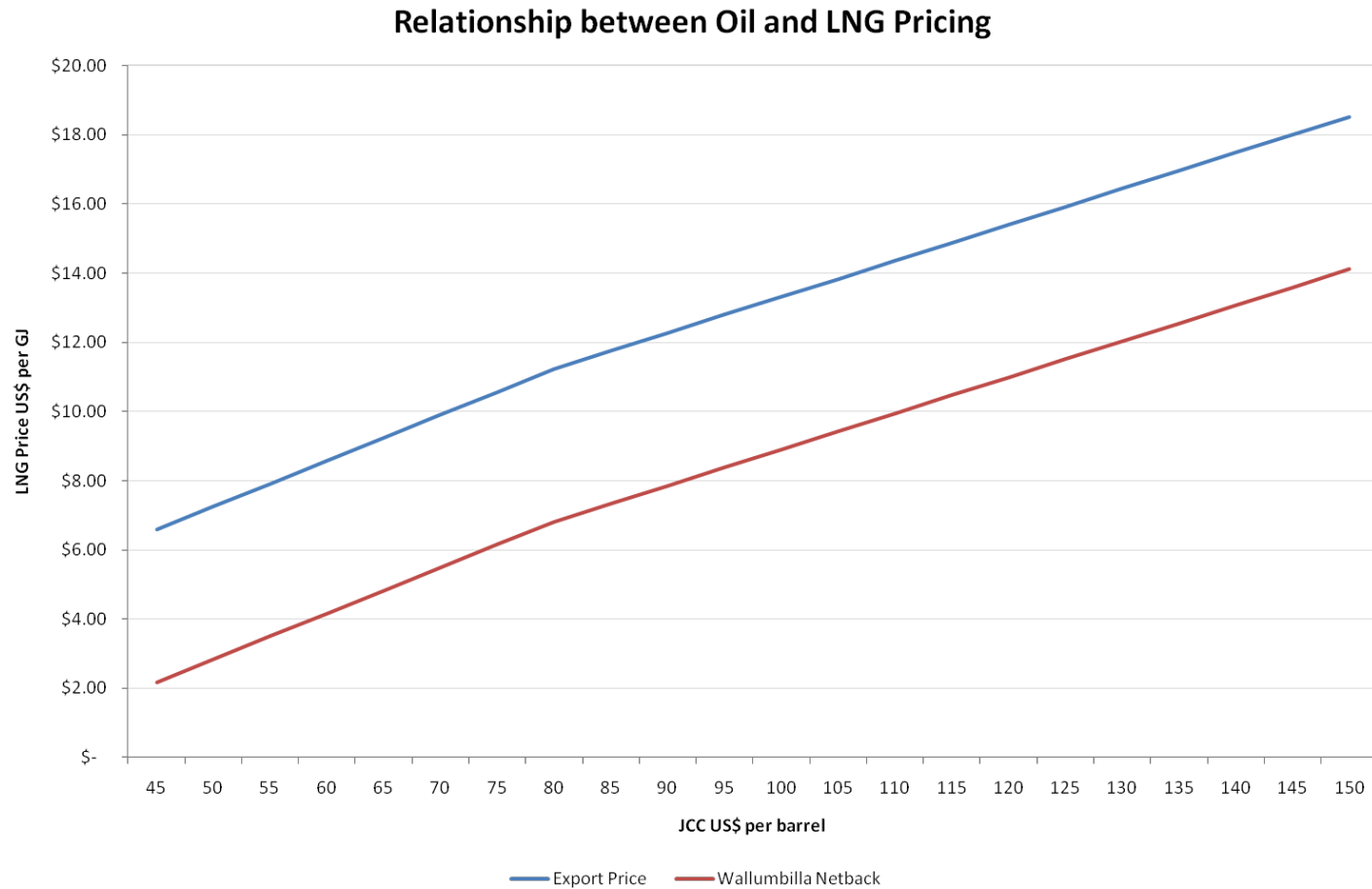
- Committed LNG projects will increase gas demand by over 1000 PJ/a by 2020.
- The only current source of gas to meet this increase in demand is CSG.
- Trend production growth from CSG will contribute only 200 PJ/a of this, after replacing the decline in conventional production and non-LNG growth.
- An additional 800 PJ/a of CSG production, above current growth rates, will be required.

**Trend demand plus committed LNG**



# Competing demands for Australia's gas resources

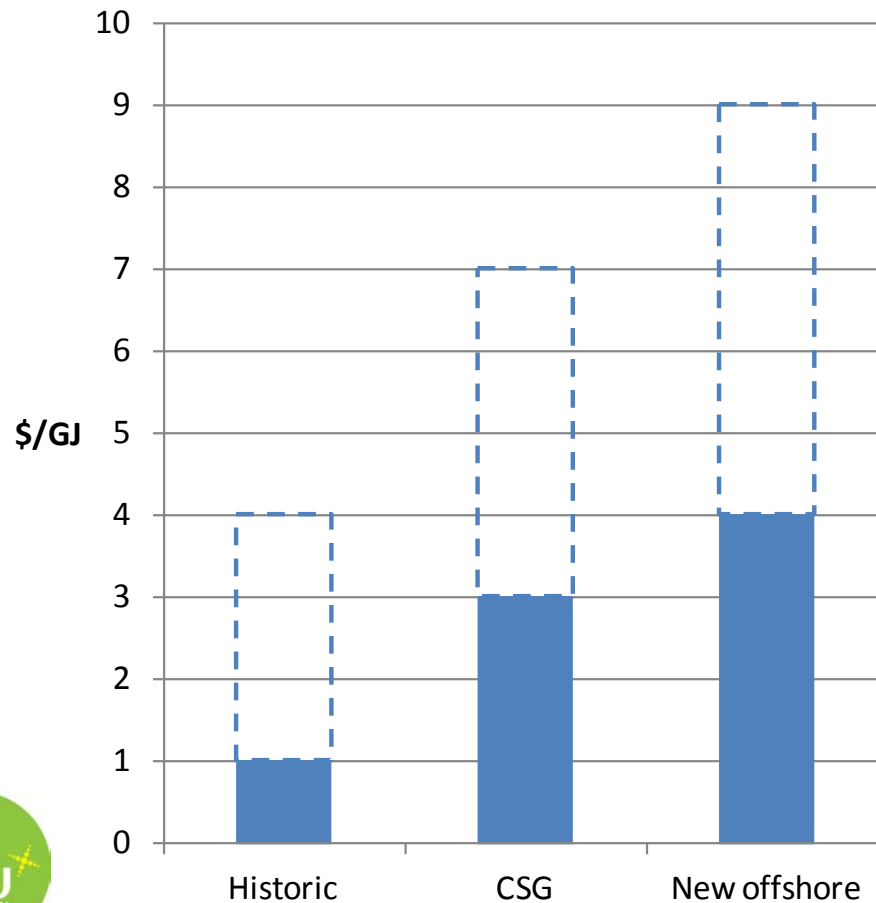
Competing demands for Australia's gas resources, coupled with increasing costs of production, will see higher future gas prices.



# Competing demands for Australia's gas resources

Competing demands for Australia's gas resources, coupled with increasing costs of production, will see higher future gas prices.

Indicative Production Costs for Gas



- Competition for EPC
- Productivity
- Drilling costs

# What is the future price of gas?

In an environment of rising prices, gas market transparency becomes critical – both for the gas market and for the electricity market.

Commodities:

All Prices are DELAYED by a minimum of 15 minutes.

## VIC Gas Futures

[REFRESH](#)

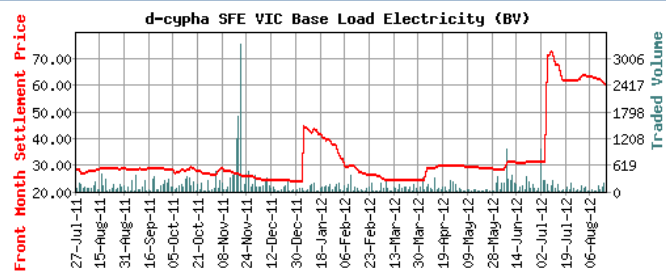
Expiry	Bid	Ask	Open	High	Low	Last Trade	Last Trade Date	Last Trade Time	Change	Traded Volume	Previous Settlement
Sep 12											3.80
Dec 12											3.50
Mar 13											3.50
Jun 13											3.70
Sep 13											3.80
Dec 13											3.50
Mar 14											3.50
Jun 14											3.50
Sep 14											3.50
Dec 14											3.50

All Prices are DELAYED by a minimum of 15 minutes.

## d-cypha SFE VIC Base Load Electricity

[REFRESH](#)

Expiry	Bid	Ask	Open	High	Low	Last Trade	Last Trade Date	Last Trade Time	Change	Traded Volume	Previous Settlement
Sep 12	59.50	61.00					24/8/12	15:59			60.80
Dec 12	53.25	54.80					22/8/12	14:38			54.30
Mar 13	61.25	63.50					24/8/12	12:02			62.75
Jun 13	52.00	53.00					23/8/12	15:59			52.80
Sep 13	52.25	54.50					22/8/12	12:00			53.08
Dec 13	51.00	52.50					22/8/12	12:00			52.06
Mar 14							26/6/12	10:52			64.21
Jun 14							26/6/12	10:52			53.06
Sep 14							9/12/11	14:33			49.96
Dec 14							9/12/11	14:30			48.97
Mar 15											76.20
Jun 15											49.79
Sep 15											42.00
Dec 15											40.51
Mar 16											91.15
Jun 16											56.85



# Impact of gas price uncertainty

A lack of forward price transparency reduces the willingness of market participants to contract with one another. A clear price signal will promote the right investment signal to correct any imbalance between supply and demand.

- With forecast increases in demand and price along with decreasing domestic gas contract availability, Governments – particularly State governments – may entertain interventionist policies such as gas reservation.

The government want[s] development of the state's coal seam gas reserves but [is] considering options for a domestic reservation policy to ensure affordable supply for residential and commercial users.

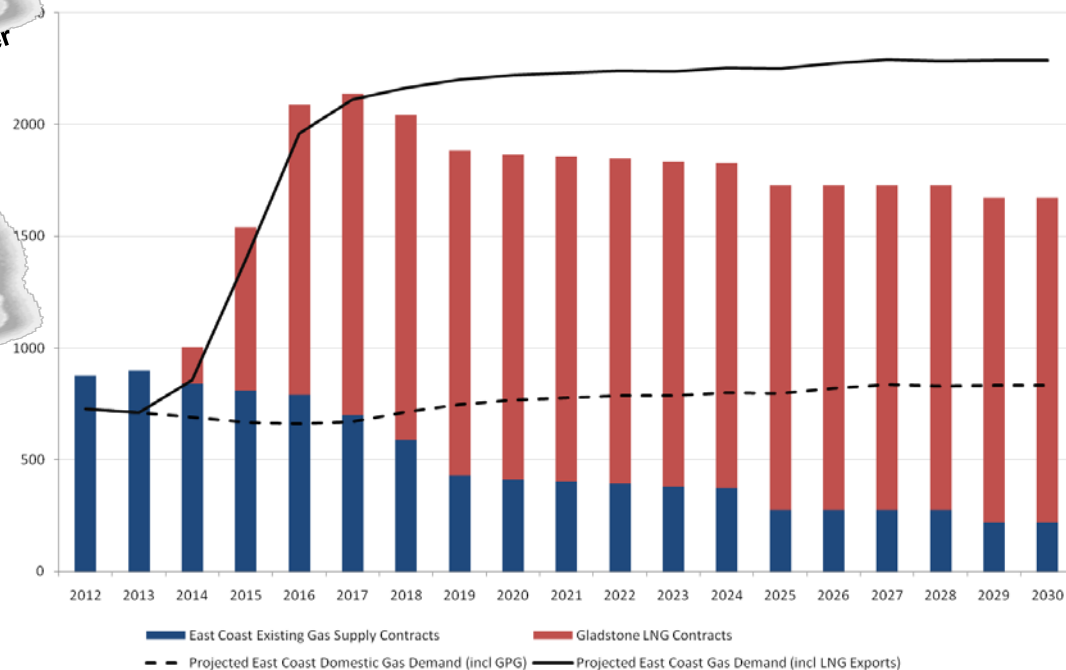
NSW Energy Minister

The Queensland Gas Market Advisor recommends that Government undertake early work to develop and consider measures that could be implemented in a timely manner should the domestic supply constraint continue.

Queensland Gas Market Advisor



East Coast Projected Demand and Existing Contracts





# Availability of domestic gas at competitive prices

---

## A deep and liquid wholesale gas market would ensure domestic access to gas at competitive prices.

- Domestic gas reservation policies would be detrimental to the development of the gas industry and may only see gas stay in the ground/seams.
- A lack of transparency in the gas market is contributing to the perception that the contract market is in hiatus.
- TRUenergy supports the development of initiatives such as AEMO's Gas Supply Hub – this could assist with the future development of secondary markets.
- In addition, TRUenergy has been working with governments and industry participants to develop a gas price index to assist market transparency.
  - The index would be constructed based on surveys of market participants conducted by an independent third party.
- To the extent that gas and electricity market interdependency increases, greater gas market transparency will increase the efficiency of both markets.
- The industry will only benefit from policy that supports increased market and price transparency, while unnecessary regulation could slow the rate at which gas exploration is conducted in the future.