

WELCOME REMARKS BY H.E. ZAINUL ABIDIN RASHEED¹
CHAIRMAN, DIAMOND ENERGY GROUP
AT THE OFFICIAL OPENING OF DIAMOND ENERGY'S
DEMAND RESPONSE CENTRE
21 NOVEMBER 2014

Mr Chee Hong Tat, Chief Executive, Energy Market Authority;

Mr Dallon Kay, President & CEO, Diamond Energy;

Distinguished Guests;

Ladies and Gentlemen.

Introduction

1. Good afternoon and thank you for joining us today for the official opening of Diamond Energy's Demand Response Centre, the first dedicated facility of its kind actively serving electricity consumers in the National Electricity Market of Singapore.
2. Demand Response globally is already playing a pivotal role in conserving energy use, and maintaining grid stability as the resource mix trends towards greater distributed renewable generation sources.
3. Singapore is taking deliberate steps to ride this trend and Diamond Energy is honoured to be the pioneering national partner in this field.

Demand Response in the Reserve Market

4. The reserve market is essential as it is where stand-by capacity is procured. This is to ensure adequate electricity supply in the event of a power plant failure or other contingency.
5. Under the EMA's leadership, Singapore was an early adopter and introduced Interruptible Load in the reserve market of the National Electricity Market of Singapore in 2004.
6. Interruptible Load, or IL as it is often referred, is a form of Demand Response that is the equivalent of stand-by generation capacity in the

¹ H.E. Zainul Abidin Rasheed is Singapore's Ambassador (Non-Resident) to Kuwait and the Foreign Minister's Special Envoy to the Middle East

form of curtailable electricity demand which can be turned off on a temporary basis in exchange for payments.

7. There are currently 15 registered loads in NEMS that provide IL, all of which are managed by Diamond Energy from our Demand Response Centre. These resources are capable of providing 21 MW of primary response (8 seconds), 21 MW of secondary response (30 seconds), and 23 MW of contingency response (10 minutes).²
8. Providing IL allows electricity customers with the means to generate additional revenue, lower their expenditure on electricity, and improve their energy efficiency.
9. During 2013 there were 20 contingency activation events with an average duration of 52 minutes.
10. IL providers are paid based on their availability whether an activation event is called or not. Minimal affected hours makes participation suitable for electricity consumers that are able to manage the curtailment of non-essential electricity loads for short periods of time.
11. We hope that more electricity consumers will take up IL in the future and that we will be able to serve them from our Demand Response Centre.

Demand Response in the Energy Market

12. Last year the EMA issued a final determination to implement Demand Response in the energy market. Preparations are underway by the Energy Market Company Pte Ltd, the operator of NEMS, to go live with this new program in late 2015.
13. When implemented, Demand Response will enhance the energy market to be more price responsive to the flexibility in electricity consumer demand. Proactive demand side participation through such a mechanism could lead to lower electricity prices for consumers.
14. To put this into perspective, during 2013, older inefficient open cycle gas turbine peaking plants fired on diesel were called into service for 165 hours. The dispatch of these facilities ranged from less than 1 MW to as high as 160 MW.
15. With 50 MW of Demand Response in the energy market, the utilization of such open cycle gas turbine peaking plants could be reduced. In other

² Source: Energy Market Company Pte Ltd, however, note that the actual quantity registered for contingency is 23.2 MW which has been rounded down to 23 MW

words, at times when less than 50 MW of capacity from peaking plants is needed the requirement could be satisfied entirely by Demand Response. At times when greater than 50 MW is needed the requirement could be partially satisfied by Demand Response.

16. I am pleased to announce today that Diamond Energy has set a target of 50 MW of Demand Response capacity within the first year of the program's implementation. This is a very meaningful target for us as it also coincides with Singapore's 50th anniversary year of independence.
17. A well-balanced electricity market will comprise of both conventional generation sources and intermittent generation sources which are complemented by innovative smart grid technologies such as Demand Response. Such diversification and technological advancement will be a critical enabler of the advancement of Singapore's smart energy economy.

Conclusion

18. The establishment of this Demand Response Centre means that the infrastructure and expertise to support electricity consumers to realise the benefits from Demand Response will be available.
19. The official opening of our Demand Response Centre is an important step towards achieving our mission of changing the way electricity is consumed here in Singapore.
20. This could not possible without the support of our customers, partners, and government agencies and we look forward to your continued support in the future.
21. Thank you.

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