



## The 21<sup>st</sup> Century is the Nuclear Century

January 2017

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Please note that in accordance with Clause 17 of the JORC (2012) Code, the potential quantity and grade of the "Exploration Target" in this presentation must be considered conceptual in nature as there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.

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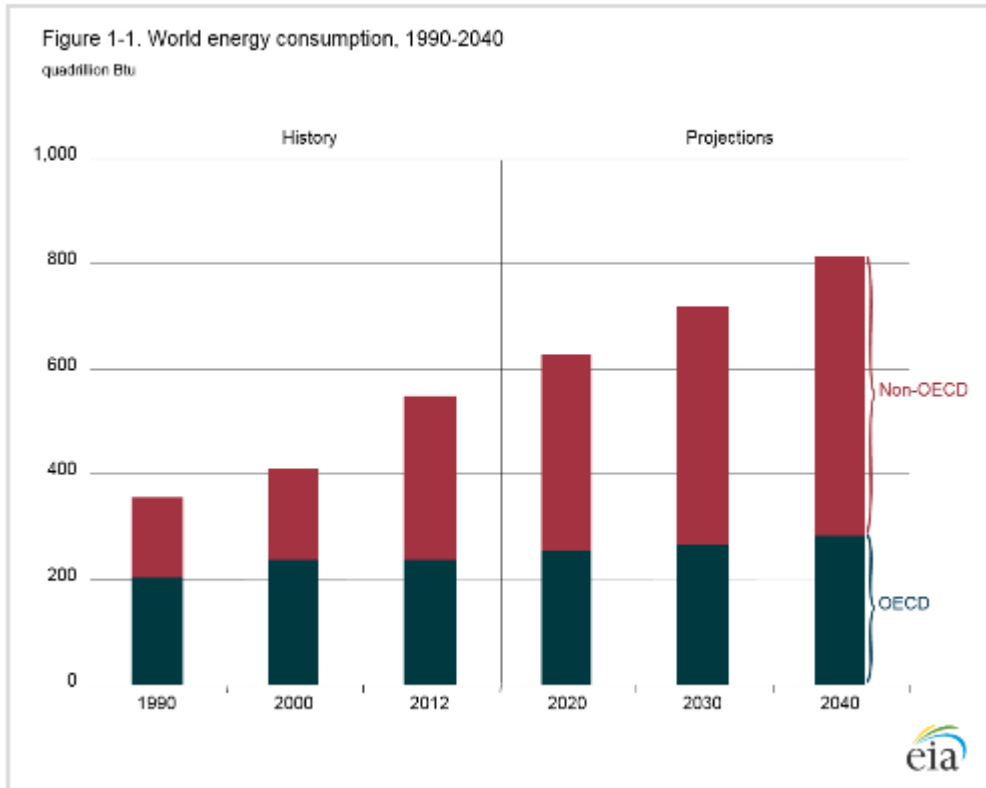
## ***Competent Person Statement***

The information in this presentation that relates to Exploration Results, Mineral Resources or Ore Reserves at Peninsula's Lance Projects is based on information compiled by Mr. Jim Guiling. Mr. Guiling is a Member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (Member of Mining and Metallurgy Society of America and SME Registered Member of the Society of Mining, Metallurgy and Exploration Inc). Mr. Guiling is Principal of independent consultants World Industrial Minerals. Mr. Guiling has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Guiling consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

The information in this presentation that relates to Exploration Results, Mineral Resources or Ore Reserves at Peninsula's Karoo projects is based on information compiled by Mr. George van der Walt. Mr van der Walt is a Member of the Australian Institute of Mining and Metallurgy (AusIMM) and the South African Council for Natural Scientific Professions (SACNASP)). Mr van der Walt is a Geological Consultant and Director of Geoconsult International (Pty) Ltd. Mr van der Walt has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. van der Walt consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

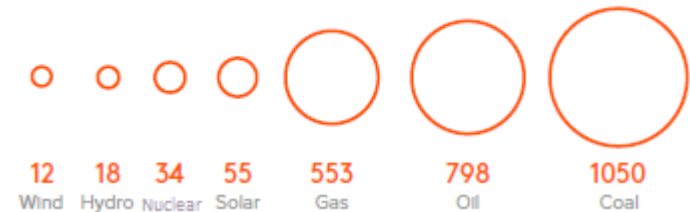
# Global Energy Consumption Growth

## World Energy Consumption Growth to 2040



## Greenhouse Gas Emissions

\* Grams of CO2 emissions per kilowatt-hour of electricity.

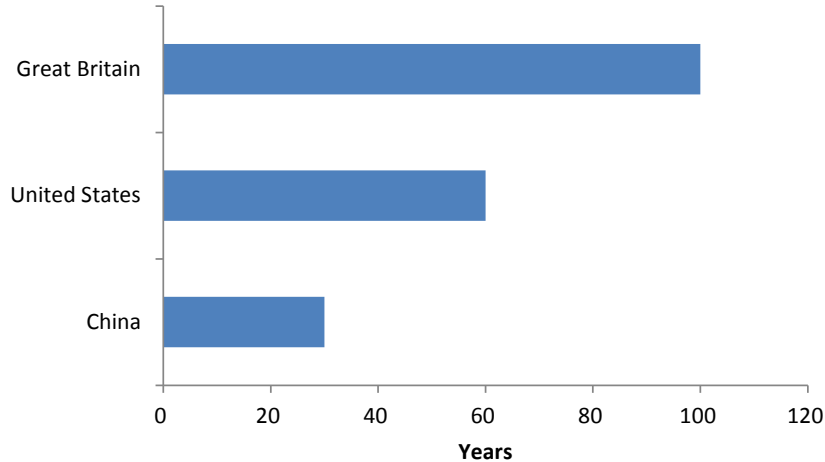


Source: Global X

- Developing countries will require cost effective, reliable, low carbon emission power to supply growing industrial and household energy needs
- Growth in global nuclear generation capacity will predominantly be driven by the developing countries: China and India

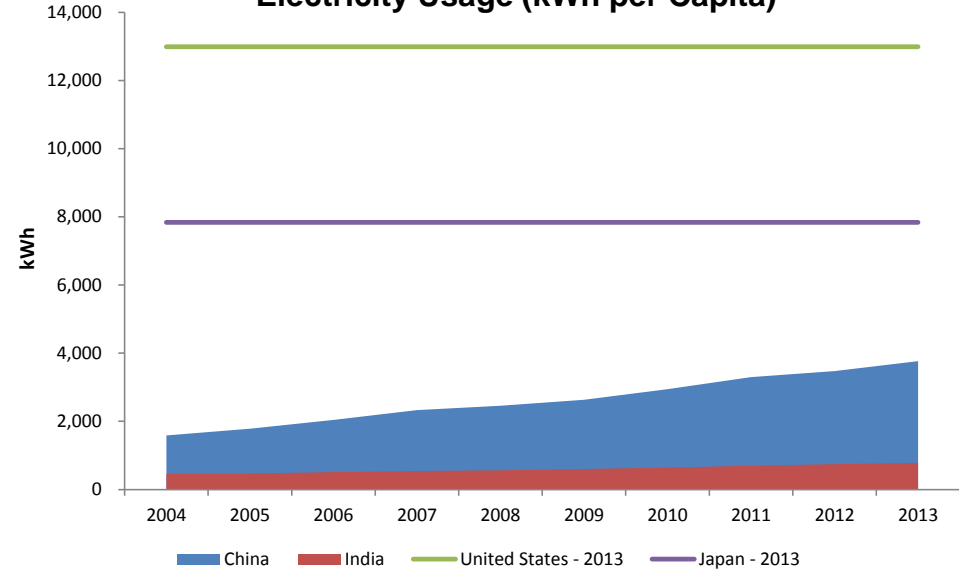
# Urbanisation and Economic Advancement Driving Electricity Demand

**No. of Years to Increase Urbanisation Rate from  
20% to 55% of Total Population**



Source: *The Economist*

**Electricity Usage (kWh per Capita)**

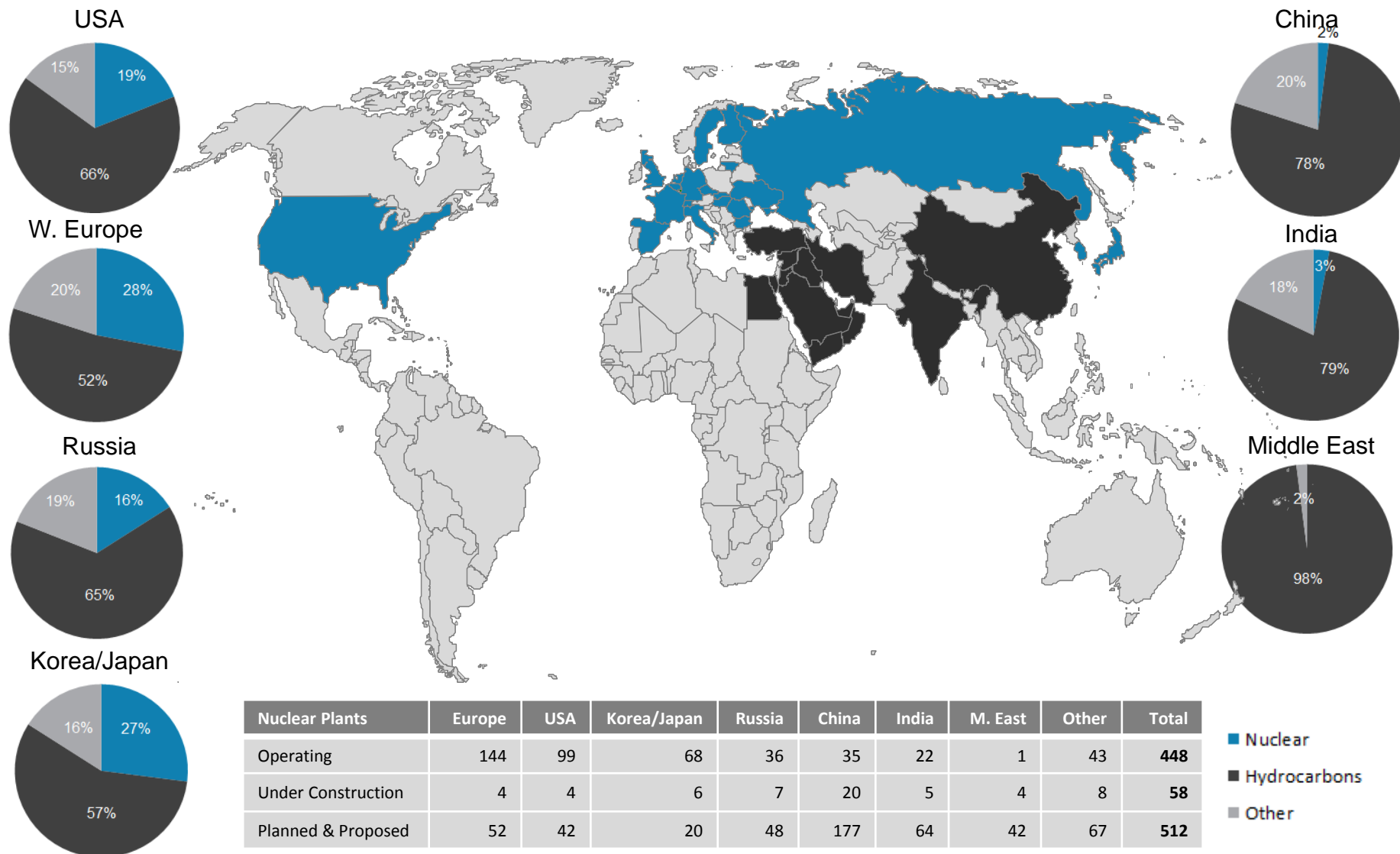


Source: *World Bank, International Energy Agency*

- Rate of urbanisation in China has been much faster than historical rates for industrialised nations
- Electricity usage continues to increase in China, but
  - Consumption in China is still less than 1/2 of Japan and only 1/3 of the USA
  - Over 70% of electricity currently generated by coal
  - China now the largest emitter of CO<sub>2</sub> – 26% of global emissions
  - Government committed to cleaner energy – banned new coal power stations; 7 new nuclear reactors annually between 2016 and 2030
- India poised to be a major contributor to growth in electricity consumption over the next 30-50 years

Source: *International Energy Agency; Forbes; World Nuclear Association*

# Power Supply in Developed and Developing Economies



# Impact of emissions and growing government support

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Beijing Smog on 1 Jan 2017

## China smog: millions start new year shrouded by health alerts and travel chaos

Source: *The Guardian*, 1 Jan 2017

## 24 Chinese cities on pollution red alert

Source: *China Daily*, 31 Dec 2016



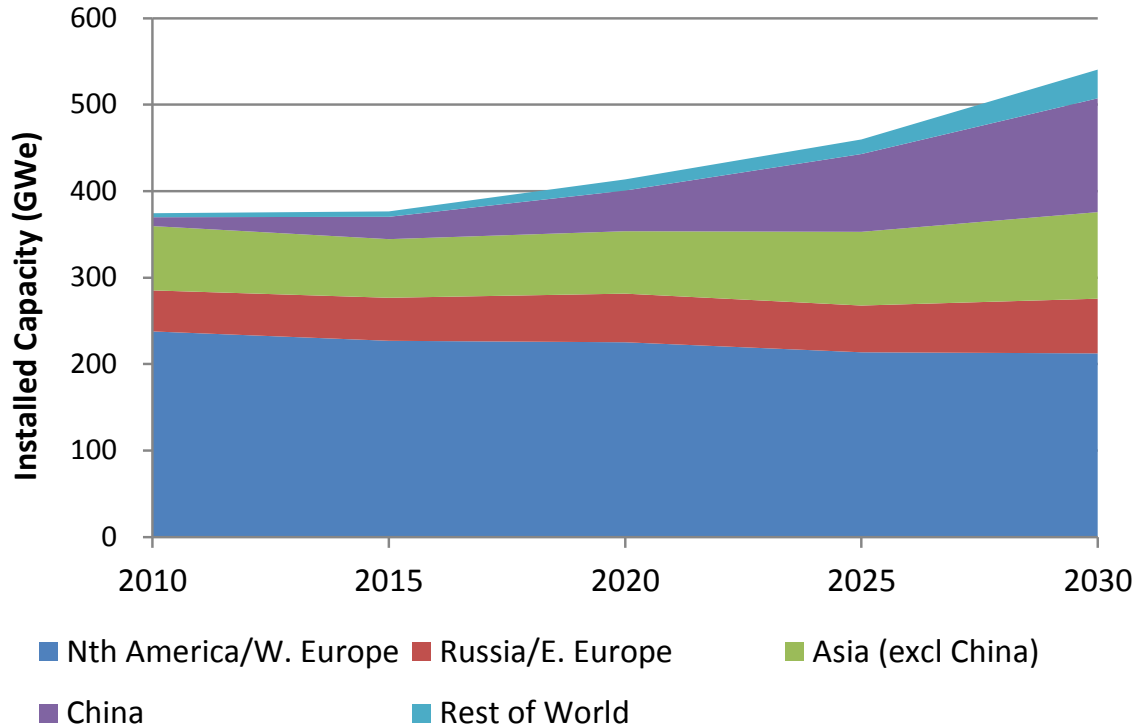
Source: *Reuters*

### **Government support for nuclear power to combat emissions**

- *The Chinese Government is aiming to double its nuclear capacity by 2020*
- *New York State “Clean Energy Standard” to support low emission power generation in August 2016*
- *Illinois State Government enacted legislation on 1 December 2016 aiming to keep its three nuclear plants open as they compete with subsidized renewables*
- *UAE has achieved 75% completion of its first nuclear plant*
- *UK Government agreed to provided an electricity price floor to support construction of Hinkley Point*

# Expansion of Nuclear Power Generation

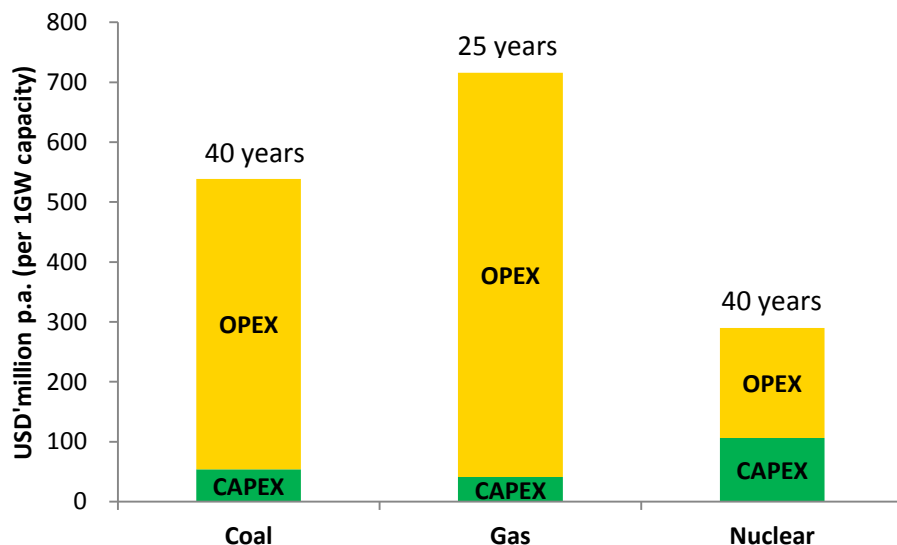
Actual & Forecast Nuclear Generating Capacity



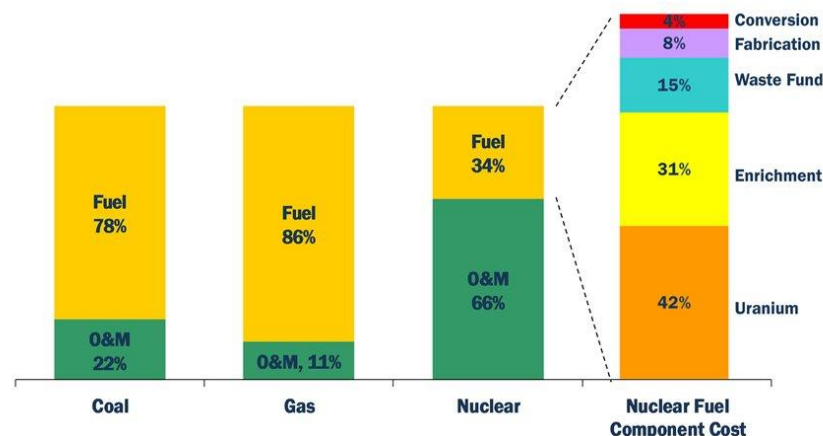
- Industrialised nations currently operate the largest fleets of existing nuclear power plants
- China, India & Russia – emerging economic powerhouses – are the primary drivers of growth
  - Most nuclear power plants Under Construction and Planned
  - Russia and China are increasingly active exporters of nuclear power

# Baseload Fuel Types and Power Generation Costs – Strategic Mix

**Average Annual Cost (CAPEX & OPEX) to Produce 1GW Electricity**



**Fuel as a Proportion of Operating Costs**

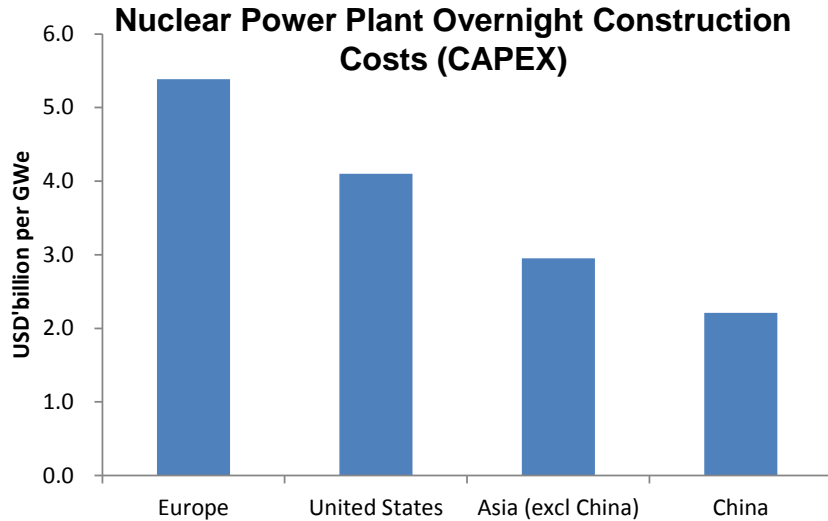


Source: IEA Projected Costs of Generating Electricity (2015 Edition) (1)

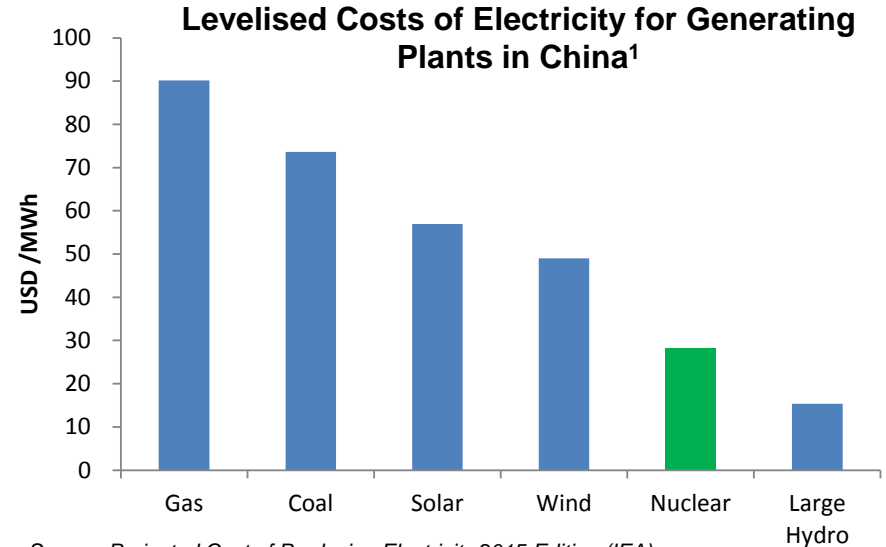
- Nuclear has the lowest OPEX of the 3 major base load technologies
- Cost of nuclear power far less susceptible to movements in raw material prices
- CAPEX for nuclear power has been the main inhibitor preventing increased use
- China and South Korea are leading the world in driving down nuclear power CAPEX

(1) Information for OECD nations and China that are included in the report titled Projected Costs of Generating Electricity (2015 Edition). All Capex costs are overnight construction costs. Coal is based on Ultra-Supercritical technology using US\$101/t for hard coal in OPEX; Gas is based on combined cycle gas turbine technology using between US\$5.50 to US\$14.40/MMBtu; nuclear uses US\$100/kg U3O8 (or US\$45.50/lb U3O8).

# Nuclear Power is the Solution for Low Emission Baseload Power



Source: Projected Cost of Producing Electricity 2015 Edition (IEA)



Source: Projected Cost of Producing Electricity 2015 Edition (IEA)

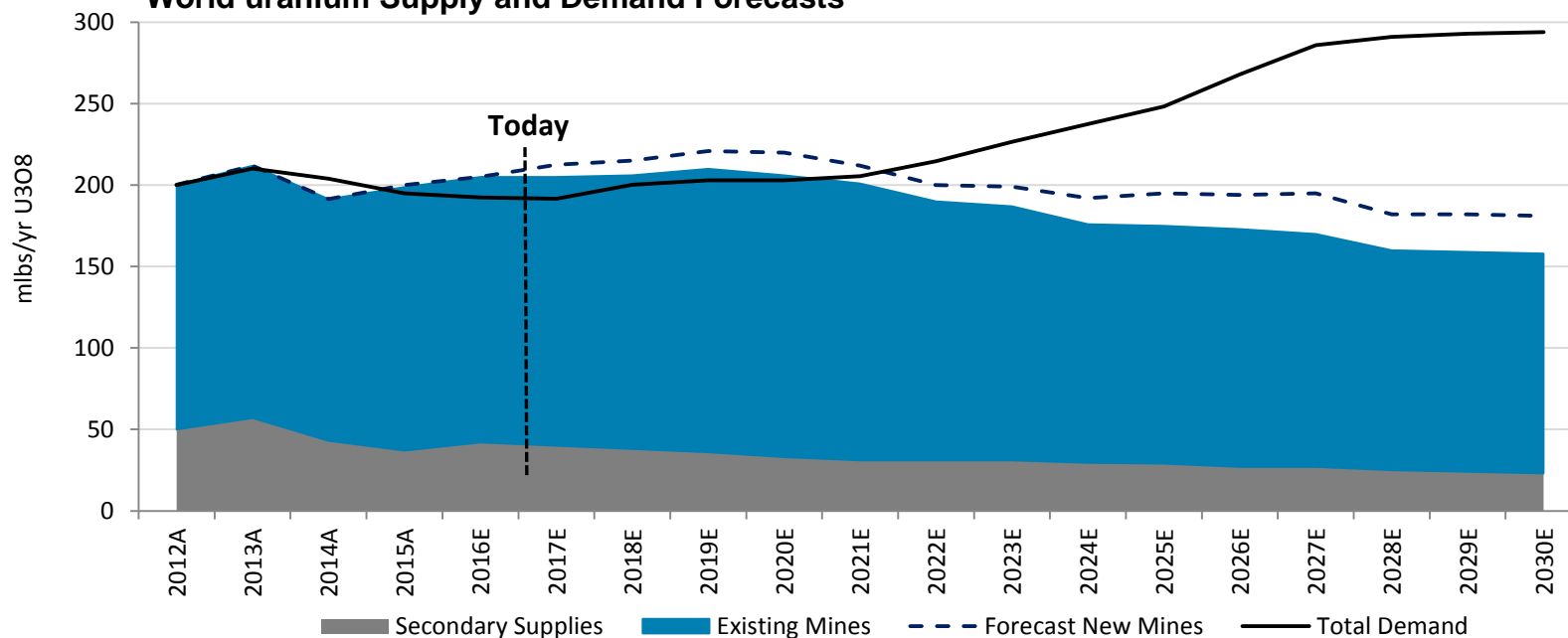
- Industrialised economies require reliable sources of low carbon baseload power 24/7
  - Consistent baseload required to power industry and social infrastructure
- CAPEX cost has been an inhibitor to the increased use of nuclear power in Western economies over the past 10 years
- China (and countries such as Russia and India) have developed solutions to drive down CAPEX costs
  - Development costs competitive with gas and coal; life cycle costs much cheaper than gas and coal
  - Chinese developed reactor technology (Hualong 1: licensed Westinghouse AP1000 hybrid);
  - R&D in new molten salt reactors for future deployment in arid inland regions

<sup>1</sup> Levelised cost of electricity calculations are based on a levelised average lifetime cost approach using the DCF method. The calculations use a combination of generic, country-specific and technology-specific assumptions for various technical and economic parameters. Costs shown in this chart are based on analysis using a 3% discount rate.

# Uranium Supply and Demand

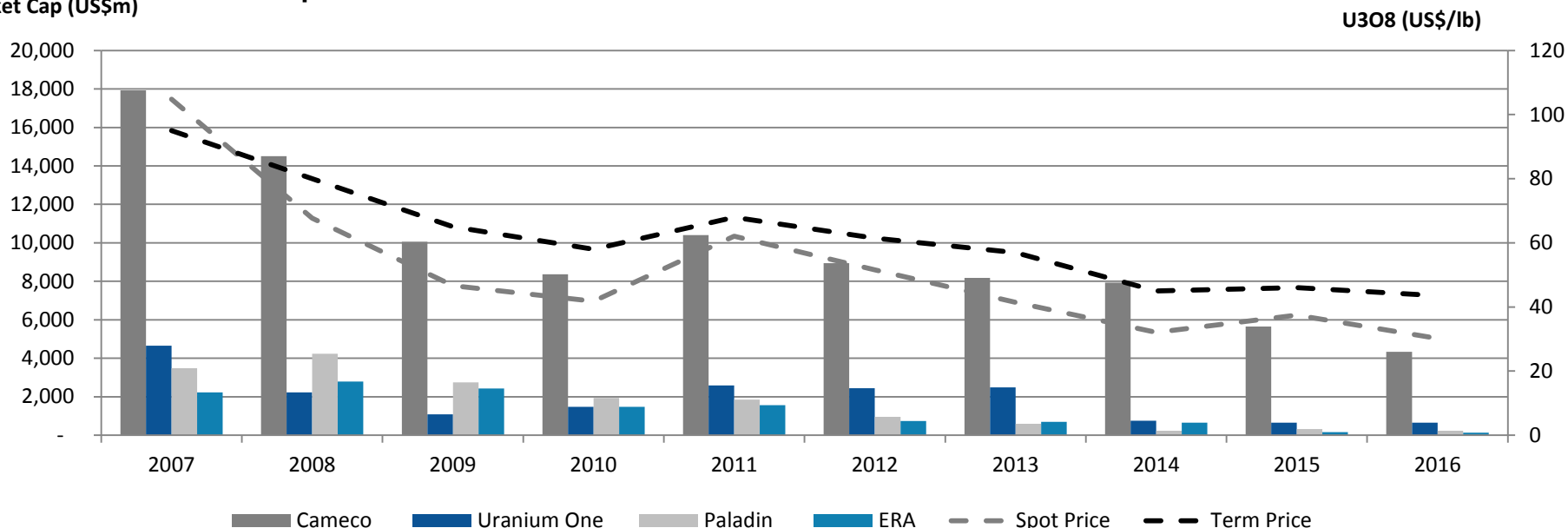
- Typically uranium is purchased via private treaty agreements. These are effectively take or pay, 5-11 years duration and at a premium to current market
- Historically term contract volumes far outweigh spot contract volumes but not from Q2 2012 – 2017
- From mid-2012 onwards: increased competition in electricity markets and shrinking margins has seen utilities drastically reduce contracting and draw-down on inventories;
- secondary supplies have increased due to reduced enrichment demand
- Producer willingness to enter term contracts has diminished due low prices and has to added spot sales
- As discretionary inventories are draw down, term volumes will increase rapidly (2017-18 and beyond)
- Kazatomprom announced in January that it will cut production by 10% (5m lbs) in 2017.

**World uranium Supply and Demand Forecasts**

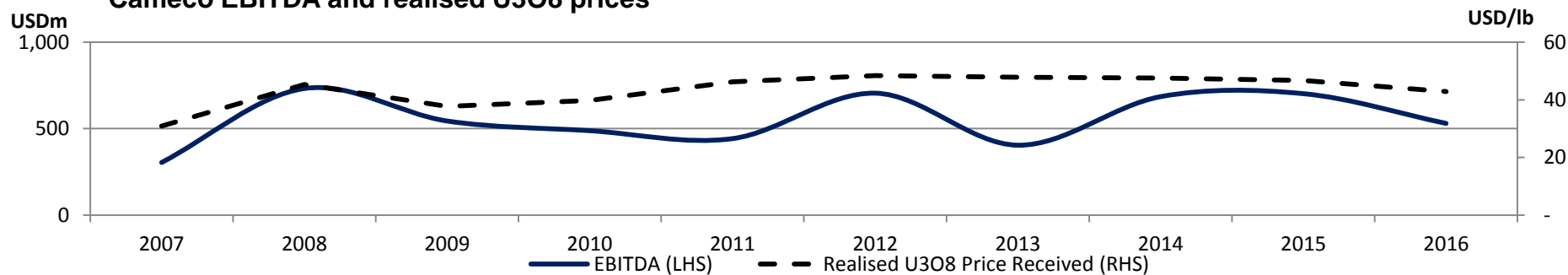


# Uranium Producers Performance 2007-2016

**Producer market capitalisations from 2007-2016**  
Market Cap (US\$m)



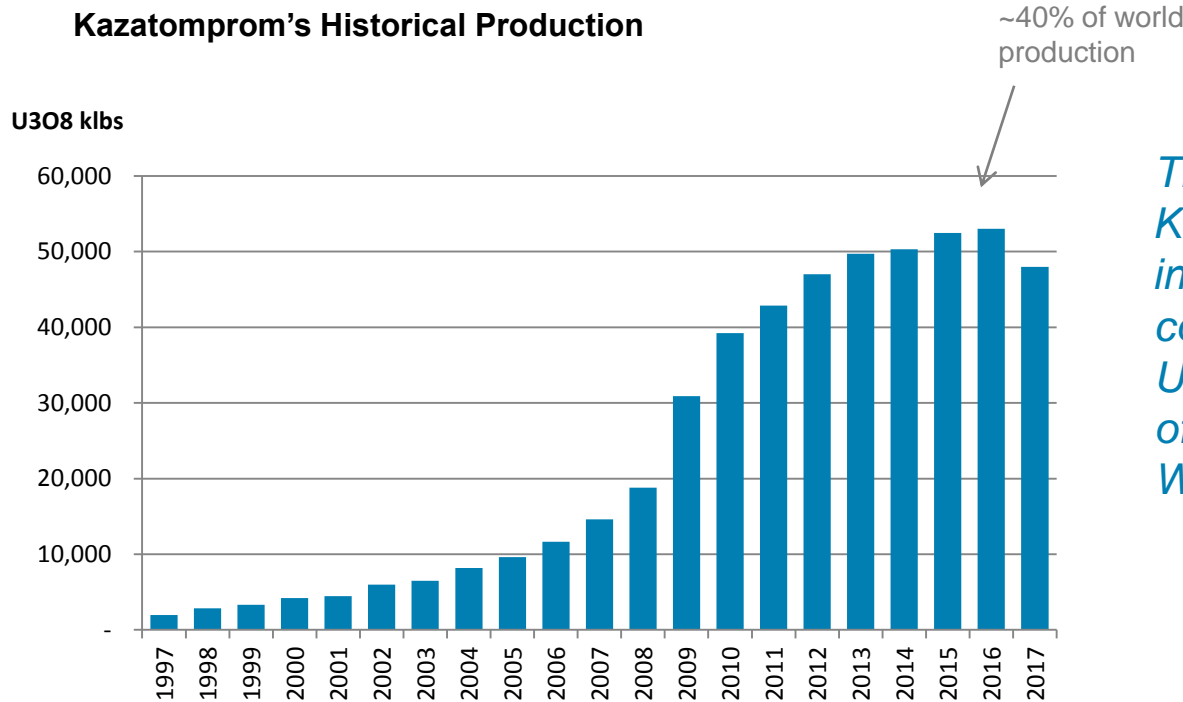
**Cameco EBITDA and realised U3O8 prices**



- Valuations of producing uranium companies have tracked the uranium price since 2007.
- A return to contracting is expected to increase uranium prices higher which will drive valuations.

# Kazatomprom to Balance the Market

**Kazatomprom's Historical Production**

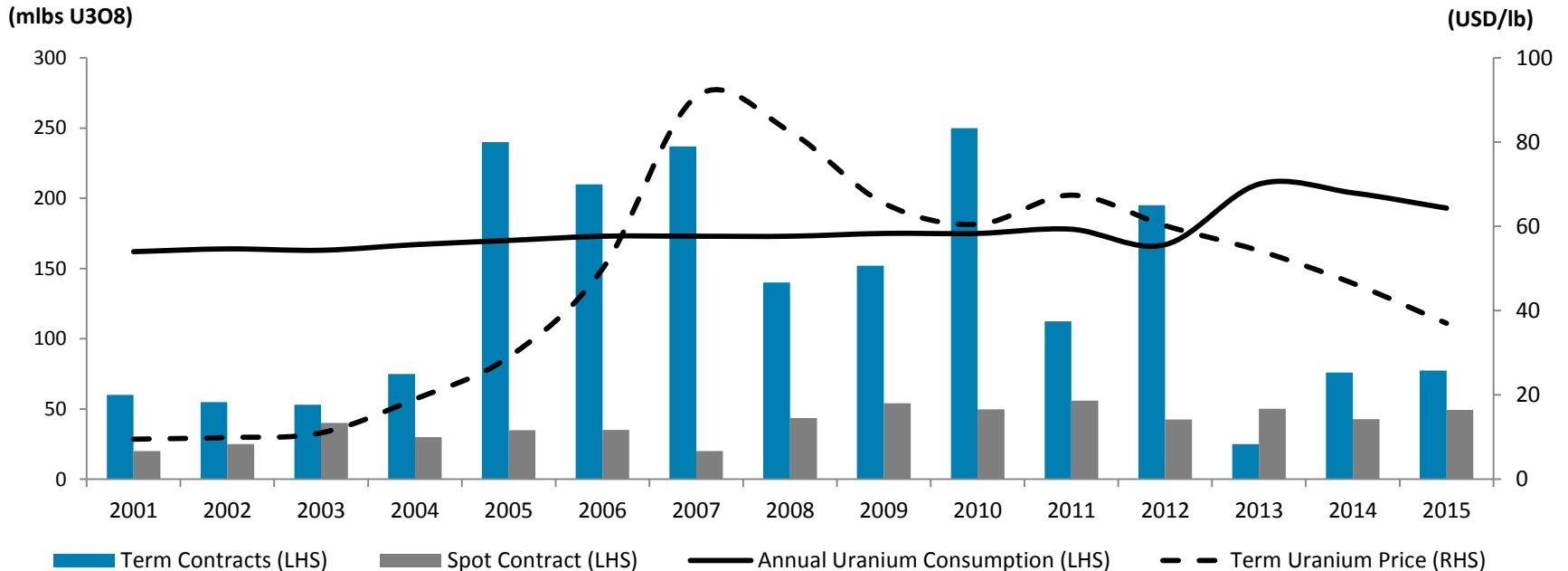


*The key objectives of Kazatomprom's strategy include "...trebling the company's value..." - Mr. Umirzak Shukeyev, Chairman of Kazakhstan's Sovereign Wealth Fund*

- To effect its objective of treble the company's value, Kazatomprom is considering:
  1. Moving away from 100% spot sales and towards term contracting through its Switzerland based sales and marketing company. The sales and marketing company is 100% owned by the Kazakh Sovereign Wealth Fund
  2. Kazatomprom has also stated that it aims to supply up to one third of the global fuel fabrication market by 2030
    - Foreign participation in the Kazakh uranium included agreement to fuel cycle technology transfer
    - 2007 acquired 10% ownership of Toshiba- Westinghouse the worlds biggest fuel fabricator
  3. Implementing a model similar to Uranium Participation Corp, whereby it will purchase and hold uranium to balance demand and supply underpinned by the Kazakh Sovereign Wealth Fund (US\$64b)

# Historic Uranium Sales

## Term and Spot Contract Volumes

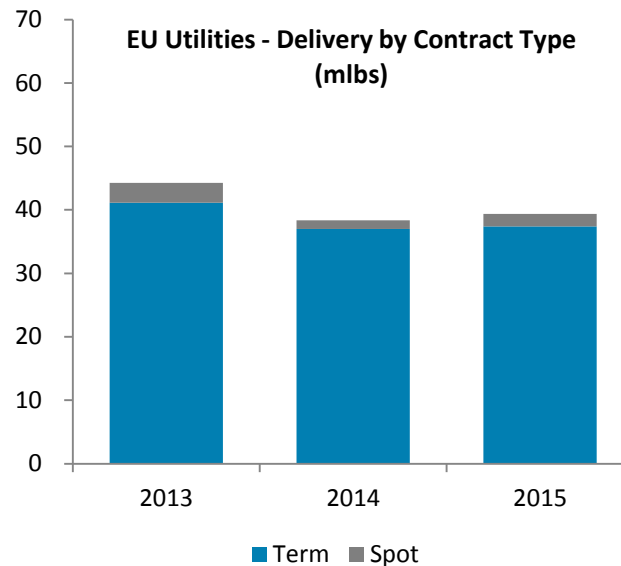
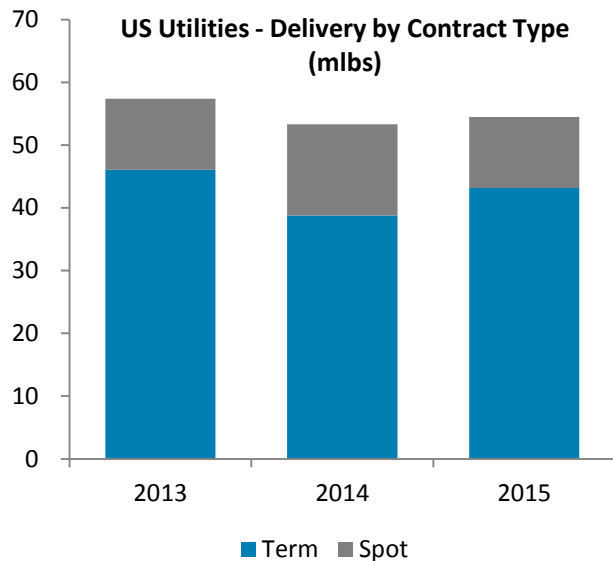


Source: UxC, Trade Tech, US Energy Information Administration; EurAtom Supply Agency

- Current uranium price is a result of:
  - Current Kazakh short term selling legislation
  - Excess utility inventory
  - Enrichment underfeeding and reprocessing of low grade tails
  - Reactor shutdown (Fukushima)
  - Spot price based offtake agreements with traders

# Price Recovery

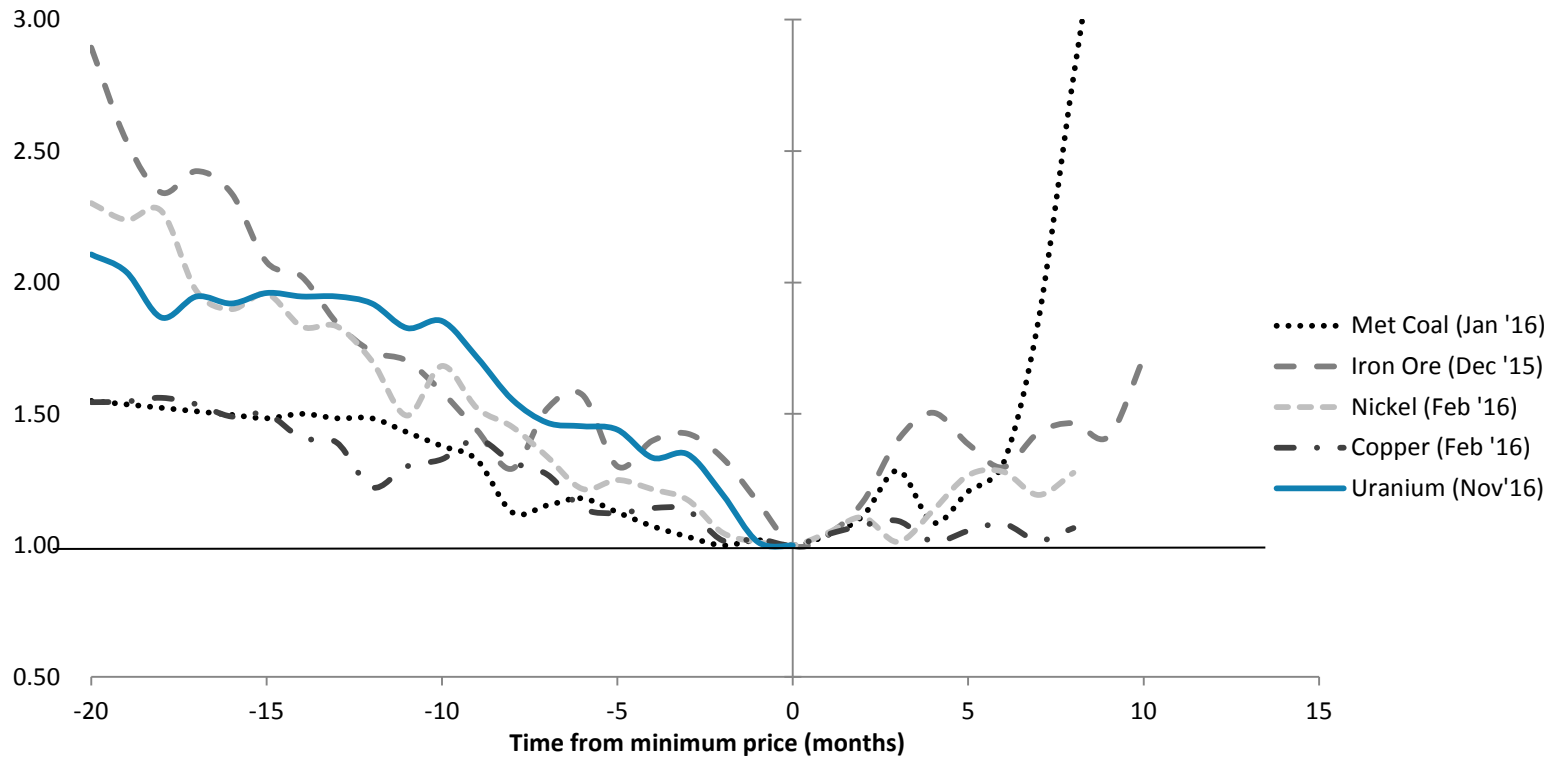
- Uranium price recovery will be driven by:
  - Increased Term Contracting due to Kazakh changes in sales & marketing strategy (SWF involvement) <http://www.kazpravda.kz/en/interviews/view/transformation-of-kazatomprom/>
  - Increased enrichment activity which will lead to a normalisation of under feeding & tails reprocessing
  - Decreased producer forced cash-flow sales
  - Supply cuts, major supply shock or structural change
- When uranium prices move they will move sharply
- Uranium equities rise dramatically on commodity price recovery



- Whilst term contracting volume has reduced significantly between mid-2012 and late-2016, the majority of deliveries continue to be under term contracts

# Significant Price Uplift when Term Contracting Returns

Rebased Commodity Price Forecasts



- Met coal, iron ore, nickel and copper bottomed in late 2015 / early 2016.
- A strong uplift is expected for uranium when market balance turns
- Commodity prices were rebased to 1 at the point in time of the minimum price in the last 24 months for comparability

# Strategic Overview

## To be a uranium producer from multiple sources in established jurisdictions with low cost, long life mines delivering directly to utilities

### Production at Lance ISR project, Wyoming

- Construction completed on-schedule and on-budget
- Production commenced in Q4 2015
- Building to 2.3m lbs U<sub>3</sub>O<sub>8</sub> per annum as contracts allow
- Acquire satellite deposit (plant capacity licensed to produce 3m lbs pa)

### Expand relationships with US and European utilities

- Utilities are seeking security of supply through diversity– those with multiple sources of low cost, long life uranium located in secure mining locations are preferred suppliers
- Peninsula has spent the last 5 years marketing directly to the large US and European utilities to:
  - Build knowledge of our plans and projects and establish trust and confidence in our management
  - Establish Peninsula as a preferred supplier: long life, low cost mines in USA, South Africa and Australia/Canada (planned)
  - Successfully entered into long term contracts

### Advance Karoo Projects as secondary uranium source

- Complete DFS and reserve drilling at Karoo Projects, South Africa and build a mine by 2019.
- Investment term sheet signed 8 May 2015; DD completed during H2 2015; earn-in percentage and JOA ongoing;
- Complete Reserve drilling ; complete DFS and build 3-4m lbs U<sub>3</sub>O<sub>8</sub> per annum

### Acquire one of several Australian or Canadian uranium projects

- Acquire one of several projects identified in Australia or Canada - develop 3-4m lbs additional U<sub>3</sub>O<sub>8</sub> per annum
- The goal is to build an 8-10m lbs U<sub>3</sub>O<sub>8</sub> per annum producer from diverse sources by early 2020's

*Please note that Production Targets within this presentation are based on a proportion of inferred resources. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resource or that the production target itself will be realised. The estimated mineral resources underpinning the production targets relating to the Lance Projects have been prepared by Jim Guiling and for the Karoo Projects by Mr George van Der Walt, Competent Persons as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. The basis of the Production Targets within this presentation are included in a presentation to ASX released on 27<sup>th</sup> March 2014 "Company Presentation – Mines and Money Hong Kong" for the Lance Projects and a presentation released on 5 February 2014 "Company Presentation – Mining Indaba Conference 2014" for the Karoo Projects." Peninsula confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the production targets continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement*

## JORC (2012) Compliant resource 53.7m lbs $U_3O_8$

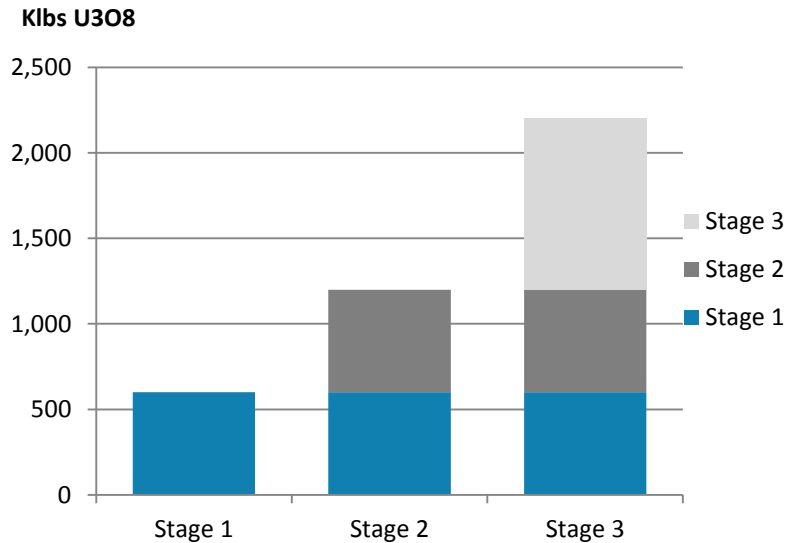


Operating ion exchange column

- Production commenced on 2 December 2015
- In-situ Recovery (ISR) mining
- Located in the North-East section of the Powder River Basin, Wyoming USA
  - Proven uranium ISR production region
- 100% owned by Peninsula Energy Limited
- Scalable development plan
  - Stage 1 – 600-700,000 lbs p.a.
  - Stage 2 – up to 1.2m lbs p.a.
  - Stage 3 – up to 2.3m lbs p.a.
- CPP licensed to produce up to 3.0m lbs p.a.

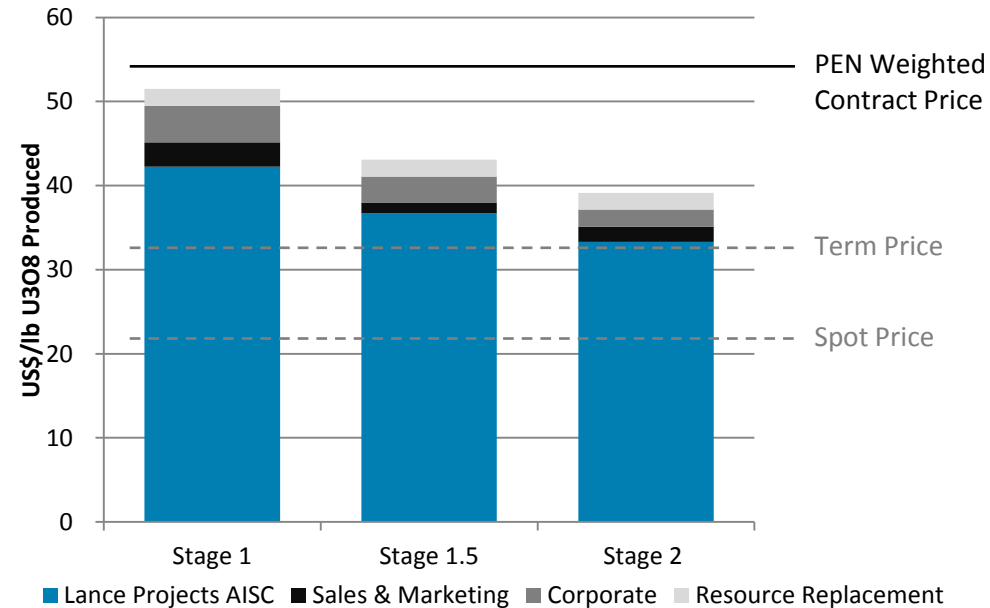
# Planned Scalable Production

## Production Profile



- Focus on aligning production with offtake contracts
- Significant optionality in Stage Two and Three:
  - Leverage to rising uranium market retained whilst offtake contracts protect Peninsula from the downside
  - Funding should be available for Stage Two for when prices recover
  - Existing plant, infrastructure and permits will allow Peninsula to bring new production online within 12-months

## All In Cash Cost<sup>1</sup>

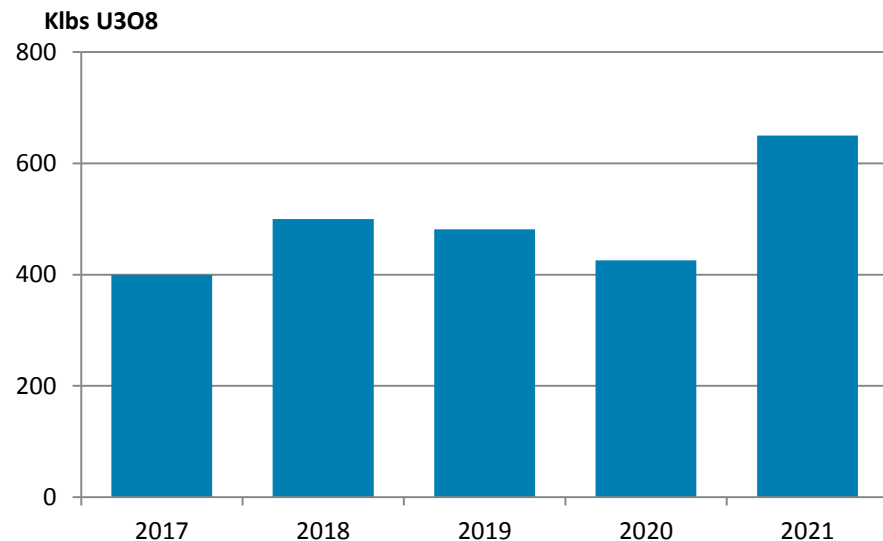


- Toll treatment minimises up-front capital and commissioning risk
- Lance Projects All-in Sustaining Cash Cost reduction optionality

<sup>1</sup> Costs for Stage 1 & 2 are all in sustaining cash costs at steady state production rates

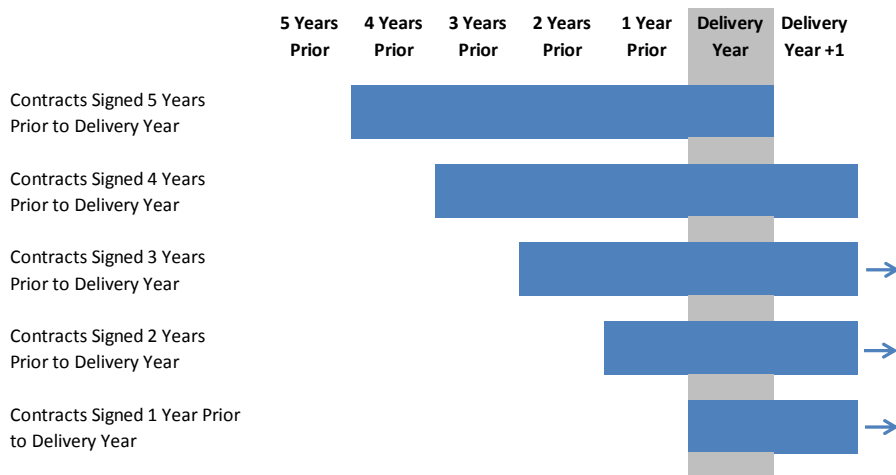
# Progressive Contracting Strategy Protects Peninsula in Current Market

## 5-Year Offtake Contract Profile



- Peninsula has a dedicated sales and marketing team in place
- Over the past 5 years, significant time has been spent building relationships with utilities
- Peninsula strategy is to progressively enter Term contracts
  - Start signing contracts up to 5 years prior to year of production
  - Plan to have all production in a given year committed to contracts by the start of that year

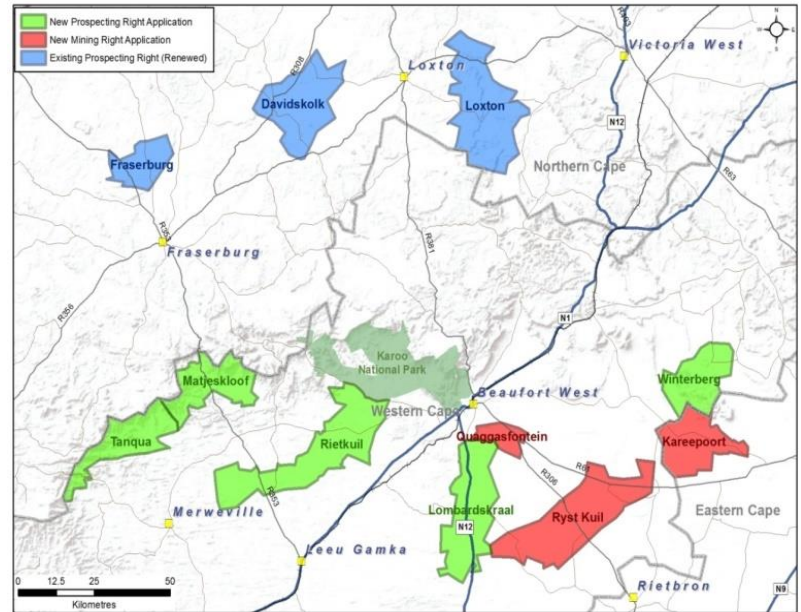
## Term Contract Delivery Profile



- Peninsula strategy has already delivered prior to the start of Lance Projects production
  - Approx. 8 million lbs under Term contracts (5 agreements)
  - US\$55/lb weighted average delivery price under existing contracts

# Karoo Projects, South Africa

- Ownership: Peninsula 74% and BEE Partners 26%
- Located approximately 400-600km E-NE of Cape Town
- 4,650 km<sup>2</sup> over Permian sandstones
- 322 km<sup>2</sup> of freehold land covers majority of historic mineralisation
- Known uranium and molybdenum mineralised province
- Scoping Study completed on Karoo Eastern Sector Projects
  - Combined open cast and decline mining
  - Acid processing route is the most efficient and cost effective
  - JORC (2012) Compliant resource 56.9m lbs eU<sub>3</sub>O<sub>8</sub> at 1,108ppm
- Pre-Feasibility Study nearing completion:
  - Pre-Feasibility Study is underway and will include all engineering works associated with the mine, tailings and in-plant infrastructure (complete in 2016)
    - Current metallurgical test work will be incorporated into the flowsheet design
- DFS to be completed by 2018
- Targeting commencement of mining in 2020
- Significant resource expansion likely: exploration target size 250-350m lbs U<sub>3</sub>O<sub>8</sub> (126-133Mt at 900-1200ppm U<sub>3</sub>O<sub>8</sub>)



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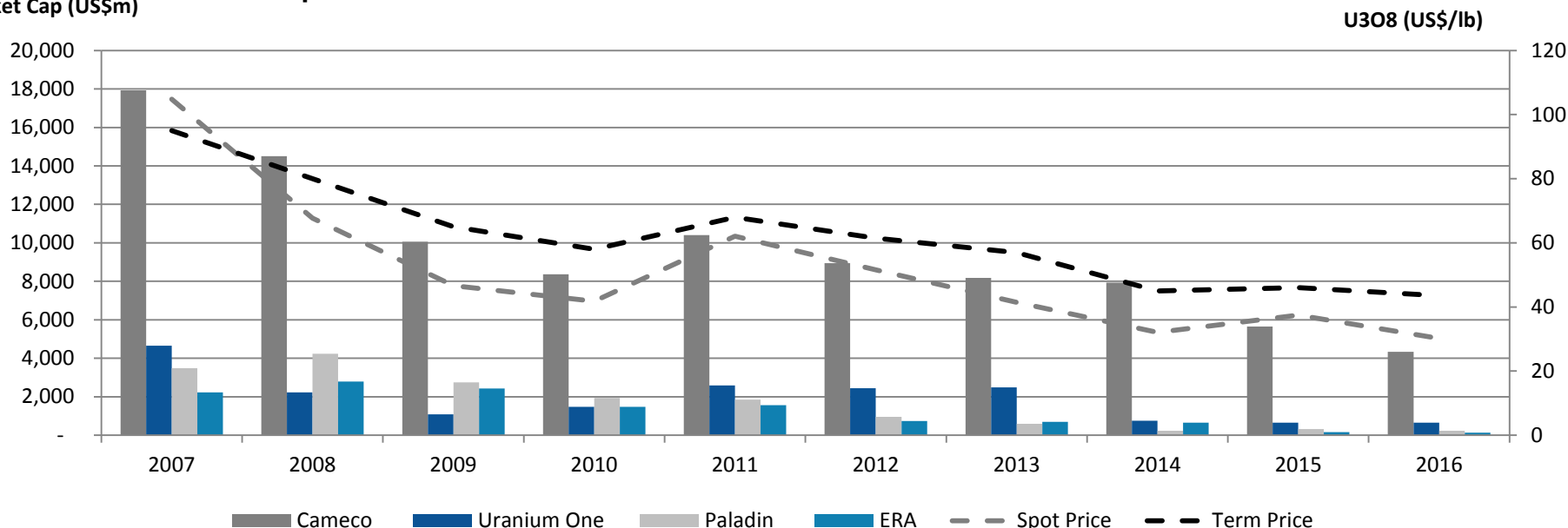
*The Karoo Scoping Study referred to in this presentation is based on low-level technical and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusions of the Scoping Study will be realised.*

- ✓ Peninsula is producing uranium at its Lance Projects
- ✓ The bottom line is insulated from spot price volatility with significant production volume in Term Contracts
- ✓ The Company has a low risk, clear path to production expansion
- ✓ Strong financial support from first-tier shareholder base
- ✓ Tightening supply and new demand expected to lift the whole uranium sector
- ✓ Steady state production expected to deliver a re-valuation
- ✓ Karoo offers a second production centre with diversity of supply and jurisdiction
- ✓ Existing plant and infrastructure will allow Peninsula to ramp up quickly and participate in a rising market

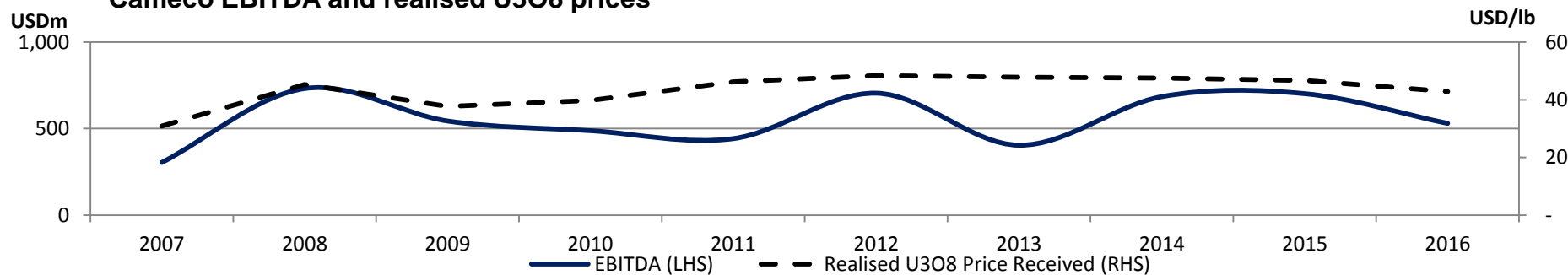
**Major sector re-rating expected with uranium supply contraction, increased new demand and utility contracting**

# Uranium Producers Performance 2007-2016

**Producer market capitalisations from 2007-2016**  
Market Cap (US\$m)



**Cameco EBITDA and realised U3O8 prices**



- Valuations of producing uranium companies have tracked the uranium price since 2007.
- A return to contracting is expected to increase uranium prices higher which will drive valuations.

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## FURTHER INFORMATION

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# Contact Details

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# Appendix 1 - Lance Exploration Target

## Additional Disclosure

### Exploration Target

The Lance Projects cover a significant proportion of the Powder River Basin Cretaceous sandstones of Wyoming, which are believed to represent an Exploration Target of between 158 and 217mlbs  $U_3O_8$  which includes 54mlbs of existing JORC (2012) Code compliant resource.

### Lance Projects Exploration Target (including the existing JORC (2012) Code Compliant Resource)

| Exploration Target | Tonnes (million) |     | Grade (ppm $eU_3O_8$ ) |     | $eU_3O_8$ (mlbs) |     |
|--------------------|------------------|-----|------------------------|-----|------------------|-----|
|                    | From             | To  | From                   | To  | From             | To  |
| Total              | 169              | 196 | 426                    | 530 | 158              | 217 |

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### Basis of Exploration Target

Exploration Target is based on a combination of Exploration Results and on proposed exploration programs.

### Exploration Results

Approximately 7,500 drillholes, of which over 2,500 have been drilled and PFN logged since 2009. The data from these holes has been used to determine a JORC (2012) Code compliant resource and to extrapolate between areas of limited drilling but still within the mineralised trends.

### Proposed Exploration Programs

The Company has minerals rights and surface access rights to 122.2 square kilometres and 107.8 square kilometres respectively. This package covers the most prospective mineralised redox /roll front trends that have a cumulative strike length of over 300km. The Company intends to continue exploration over this ground with drilling in order to validate the exploration target and convert to resources.

# Appendix 1 - Lance Exploration Target

## Additional Disclosure

### **Basis of Grade and Tonnage Range Determination**

With a database of approximately 7,500 drillholes together with several decades of geological research the level of exploration activity on which the Exploration Target is based, is considered to be high.

The known Lance resources are located in the upper Lance Formation and in the lower Fox Hills horizons in which roll fronts have been identified over a cumulative length of over 300kms. These horizons have only been partially explored and towards the south (Barber area) the lower unit of the Fox Hills has not been systematically tested. Along these channels JORC-compliant resources have been estimated in localised areas in which reliable drilling data is available. The zones between the JORC (2012) Code compliant resource areas form the Exploration Target because of the following:

- Continuity of the prospective sandstone established by geological mapping and regional drilling
- Historic estimates of mineralisation based on drilling which has not yet been validated by Peninsula

The Exploration Target is based on a combination of:

- A tonnage calculation that incorporates the total cumulative prospective strike length of the identified redox fronts multiplied by the average width, thicknesses as determined in the resource estimate,
- The grade range represents the lowest resource area grades and highest resource area grades

### **Summary of the Relevant Exploration Data Available and the Nature of the Results**

For a comprehensive description of drilling information readers are referred to JORC Table 1 at the end of this presentation.

### **Proposed Exploration Activities Designed To Test Validity of the Exploration Target**

Over the life of mine ongoing exploration drilling is proposed to expand the JORC (2012) Code compliant resource within the Exploration Target areas. This initial program will be focussed on the Kendrick area. Exploration activities will mostly comprise geophysical logging of additional drillholes.

### **Lance Projects Competent Person Statement**

*The information in this presentation that relates to Exploration Targets, Exploration Results and Exploration Potential at the Lance Projects is based on information compiled by Mr. Jim Guiling. Mr. Guiling is a Member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (Member of Mining and Metallurgy Society of America and SME Registered Member of the Society of Mining, Metallurgy and Exploration Inc). Mr. Guiling is Principal of independent consultants World Industrial Minerals. Mr. Guiling has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Guiling consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.*

# Appendix 2 - Karoo Exploration Target

## Additional Disclosure

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### **Basis of the Exploration Target**

The Exploration Target is based on a combination of Exploration Results and proposed exploration programs.

*Please note that in accordance with Clause 17 of the JORC (2012) Code, the potential quantity and grade of the "Exploration Target" in this presentation must be considered conceptual in nature as there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource.*

### **Exploration Results**

The database currently contains 9,343 historic holes, of which 7,230 have been used to determine the JORC (2012) Code compliant Mineral Resource and subsequent update and to extrapolate between areas of limited drilling still within the mineralised trends. Many of the remaining collar positions are for historic holes that are not within the current resource areas or are inaccessible (filled in over time). For a comprehensive description of drilling information readers are referred to the JORC Table 1 declaration included in the announcement released to ASX on 11 March 2014 titled "13% Resource Expansion and Upgrade at Karoo Projects".

### **Proposed Exploration Programs**

Peninsula has prospecting rights to 7,550 square kilometres of ground. This package covers the most prospective mineralised trend that have a cumulative strike length of 23km. Peninsula intends to continue exploration over this ground using airborne radiometric data, geological mapping and prospecting together with follow up drilling with the intention of locating additional material for future mining and processing.

### **Basis of Grade and Tonnage Range Determination**

With a database of 9,343 drill holes together with several thousand historic holes not yet located and entered into the database, and several decades of geological research and surface exploration, the level of exploration knowledge on which the Exploration Target is based is considered to be high.

The current Karoo resources are located on two well-defined sedimentary channels that each extends for at least 100 kms along strike. These channels have, according to historic records, been tested both recently and historically by in excess of 10,000 exploration drill holes representing 1.6 million metres of drilling. Along these channels JORC (2012) Code compliant resources have been estimated in localised areas in which reliable drilling data is available. The zones between the JORC-compliant resources areas form the Exploration Target because of the following:

- Continuity of the prospective sandstone established by geological mapping and regional drilling
- Historic estimates of mineralisation based on drilling which has not yet been validated by Peninsula

The current JORC(2012) Code compliant resource of the Ryst Kuil channel alone, which represents the most completely drilled portion of the resources, comprises 18.5mt at 1,105ppm eU3O8.

# Appendix 2 - Karoo Exploration Target Additional Disclosure

This resource tonnage is distributed over a cumulative strike length of 23km representing approximately 0.80 million tonnes/km. The Exploration Target is based on a combination of:

- the total cumulative prospective strike length of the undrilled sections of the channel multiplied by the demonstrated tonnage/km, combined with,
- the areas of known mineralisation for which historic estimates exist but are not included in the JORC-compliant resource
- the grade range represents the lowest resource area grades and highest resource area grades

## **Summary of the Relevant Exploration Data Available and the Nature of the Results**

For a comprehensive description of drilling information readers are referred to JORC Table 1 included in announcement to the ASX on 11th March 2014: 13% Resource Expansion and Upgrade at Karoo Projects. Peninsula confirms that it is not aware of any new information or data that materially affects the information included in this presentation and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

## **Proposed Exploration Activities Designed To Test Validity of the Exploration Target**

Over the next 3-5 years ongoing exploration drilling is proposed to expand the JORC (2012) Code compliant resource within the Exploration Target areas. This initial 3-5 years program will be focussed on the Eastern Sector RystKuil channel. Exploration activities will mostly comprise geophysical logging and geochemical sampling of additional drillholes, ground-based prospecting and geological mapping.

Testing of the Western Sector Exploration Target, utilising the same exploration techniques, areas will commence during following 5-10 year time frame.

## **Karoo Projects Competent Person Statement**

*The information in this presentation that relates to Exploration Targets, Exploration Results and Exploration Potential at Peninsula's Karoo projects is based on information compiled by Mr. George van der Walt. Mr. van der Walt is a Member of the Australian Institute of Mining and Metallurgy and is a member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (The South African Council of Natural Scientific Professions, Geological Society of South Africa). Mr van der Walt is a Director of Geoconsult International. Mr van der Walt has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. van der Walt consents to the inclusion in the presentation of the matters based on their information in the form and context in which it appears.*

# Appendix 3 - Lance JORC Resource

| Classification                  | Tonnes            | Grade (ppm U3O8) | eU3O8(lbs)        | Mineability factor | eU3O8 (lbs)       | Recovery factor | Recovered U3O8 (lbs) 50.4% |
|---------------------------------|-------------------|------------------|-------------------|--------------------|-------------------|-----------------|----------------------------|
| Measured                        | 4,142,950         | 495              | 4,520,159         | 0.8                | 3,616,128         | 0.8             | 2,892,902                  |
| Indicated                       | 11,532,135        | 497              | 12,640,951        | 0.8                | 10,112,761        | 0.8             | 8,090,209                  |
| <b>Measured &amp; Indicated</b> | <b>15,675,085</b> | <b>497</b>       | <b>17,161,110</b> | <b>0.8</b>         | <b>13,728,888</b> |                 | <b>10,983,111</b>          |
| Inferred                        | 35,478,033        | 467              | 36,513,114        | 0.6                | 21,907,868        | 0.8             | 17,526,295                 |
| <b>Total</b>                    | <b>51,153,119</b> | <b>476</b>       | <b>53,674,224</b> |                    | <b>35,636,757</b> |                 | <b>28,509,405</b>          |

## ISR Reserves are determined after well field development drilling

*“JORC Table 1 included in an announcement to the ASX released on 27th March 2014: “Company Presentation – Mines and Money Hong Kong”. Peninsula confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.*

# Appendix 4 - Karoo JORC Resource

## JORC Compliant Resource March 2014

| Classification | Cut-off: eU3O8(ppm) | Tonnes (million) | eU3O8 (ppm)  | eU3O8 (million lbs) |
|----------------|---------------------|------------------|--------------|---------------------|
| Indicated      | 600                 | 8.0              | 1,242        | 21.9                |
| Inferred       | 600                 | 15.3             | 1,038        | 35                  |
| <b>Total</b>   | <b>600</b>          | <b>23.3</b>      | <b>1,108</b> | <b>56.9</b>         |

| Classification   | Sector  | Cut-Off: eU3O8 (ppm) | Tonnes (million) | eU3O8 (ppm)  | eU3O8 (million lbs) |
|------------------|---------|----------------------|------------------|--------------|---------------------|
| <b>Indicated</b> | Eastern | 600                  | 7.1              | 1,206        | 18.7                |
|                  | Western | 600                  | 0.9              | 1,657        | 3.2                 |
| <b>Inferred</b>  | Eastern | 600                  | 11.8             | 1,046        | 27.2                |
|                  | Western | 600                  | 3.5              | 1,019        | 7.8                 |
| <b>Total</b>     |         | <b>600</b>           | <b>23.3</b>      | <b>1,108</b> | <b>56.9</b>         |

## Large resource potential: 100+ year mine life

*Note: Totals may not sum exactly due to rounding*

*2JORC Table 1 included in announcement to the ASX released on 11<sup>th</sup> March 2014 : "13% Resource Expansion and Upgrade at Karoo Projects". Peninsula confirms that it is not aware of any new information or data that materially affects the information included in this presentation and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.*

# Appendix 5 - Board of Directors

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**John Harrison, Non-Executive Chairman:** Mr Harrison brings to Peninsula a wealth of experience and resource sector knowledge acquired over a 45 year career including 20 years of investment banking in London. During this time Mr Harrison has developed an extensive international contact base advising companies across a range of commodities, (including uranium) and raising more than £500m in equity capital in the process.

**John (Gus) Simpson, Managing Director/Chief Executive Officer:** Strong strategic leader, extensive background in resources, corporate finance and management; 25 years' experience in USA, Asia, Africa and Australia. Mr Simpson has been Managing Director of Peninsula since 2007 and has lead the Company through the exploration, permitting, feasibility, financing, construction and production stages of development.

**Harrison (Hink) Barker, Non-Executive Director:** Harrison (Hink) Barker retired June 1, 2015 from the Generation segment of Dominion Resources with over 40 years of fossil and nuclear fuel commercial and technical responsibilities. Since 1992, Mr Barker had been the manager responsible for Dominion's procurement of nuclear fuel and the related processing steps of conversion from U3O8 to UF6, enrichment of UF6, and fabrication of nuclear fuel assemblies.

**Warwick Grigor, Non-Executive Director:** Mr Grigor is a highly respected and experienced mining analyst, with an intimate knowledge of all market related aspects of the mining industry. He is a graduate of the Australian National University having completed degrees in law and economics. He is the previous Executive Chairman of Canaccord Genuity Australia and is now the Executive Chairman of Far East Capital, an investment and advisory firm focussed on the resources sector.

**Mark Wheatley, Non-Executive Director:** Mr. Wheatley is an experienced resources company CEO, Non-Executive Director and Chairman with a career spanning more than 30 years in mining and related industries. Mr. Wheatley has 10 years' experience in the uranium industry and been involved in ISR project feasibility studies, start up, production, rehabilitation and closure. His uranium experience includes the roles of Chairman and CEO of Southern Cross Resources Inc., the operator of the Honeymoon ISR uranium project and Non-Executive Director of Uranium One Inc. and Uranium Resources Inc.

**Richard Lockwood, Non-Executive Director:** Mr Lockwood has over 50 years' experience in the funds management and mining investment sectors across the United Kingdom, Australia, and South Africa. He has extensive involvement with the uranium sector and was previously a Director of AIM-listed uranium company Kalahari Minerals. Mr Lockwood is a Director of London based Arlington Group Asset Management.

**Evgenij Iorich, Non-Executive Director:** Mr Iorich is currently Vice President, Investment Team at Pala Investments Limited (Pala) and has extensive experience in the natural resources sector across a broad range of commodities with a focus on M&A opportunities, operational, financial planning and corporate structuring. Prior to joining Pala in 2006, Mr Iorich was a financial manager at Mechel where his responsibilities included all aspects of budgeting and financial modelling.

## Extensive experience in mine development & uranium sales

**Gus Simpson**  
Managing Director/CEO

Strong strategic leader, 9 years working in all aspects of the uranium business, extensive background in resources, corporate finance and management; 25 years' experience in USA, Asia, Africa and Australia

**Ralph Knode**  
CEO North America

Senior management geologist /engineer; 30 years' experience with Cameco and Uranium One in ISR mine development and operation in USA, Central Asia and Australia

**David Coyne**  
Chief Financial Officer

CPA accountant and experienced mineral production CFO; 25 years' cross border experience in Australia, Asia and USA

**Willie Bezuidenhout**  
CEO South Africa

9 year's uranium experience in Africa and Australia; previously Vice President Business Development for Uranium One

**Harrison Barker**  
Director Sales & Marketing

Over 40 years of fossil and nuclear fuel commercial and technical responsibilities. Between 1992-2015 he was the manager responsible for Dominion's procurement of nuclear fuel and related processing steps. He brings an extensive knowledge of power utility fuel needs and processes

**Laurent Odeh**  
VP Sales & Marketing

15 years commercial and business development experience in the mining sector, including responsibility for Rio Tinto uranium sales in Europe and South Africa

**Mike Griffin**  
VP Permitting, Regulatory and  
Environmental Compliance

Extensive experience in Health Physics, permitting and compliance with Cameco and Uranium One in North America, Central Asia and Australia

**Mike Brost**  
VP Geology North America

Senior uranium geologist ; 30+ years' experience in uranium roll front exploration and well field planning, design and operation with US subsidiary of Cameco

**Jan Fajgl**  
VP Production

Mining engineer with over 25 years' experience in managing uranium field operations, mine engineering and hydrology in the United States, Czechoslovakia and Kazakhstan.

**Ben Schiffer - WWC  
Engineering**  
Lead Permitting Consultant

Over 30 years' operating experience in all facets of the Wyoming regulatory and permitting process ([www.wwcengineering.com](http://www.wwcengineering.com))

**Brian Pile - TREC**  
Project Manager-Design  
Engineers & EPC contractors

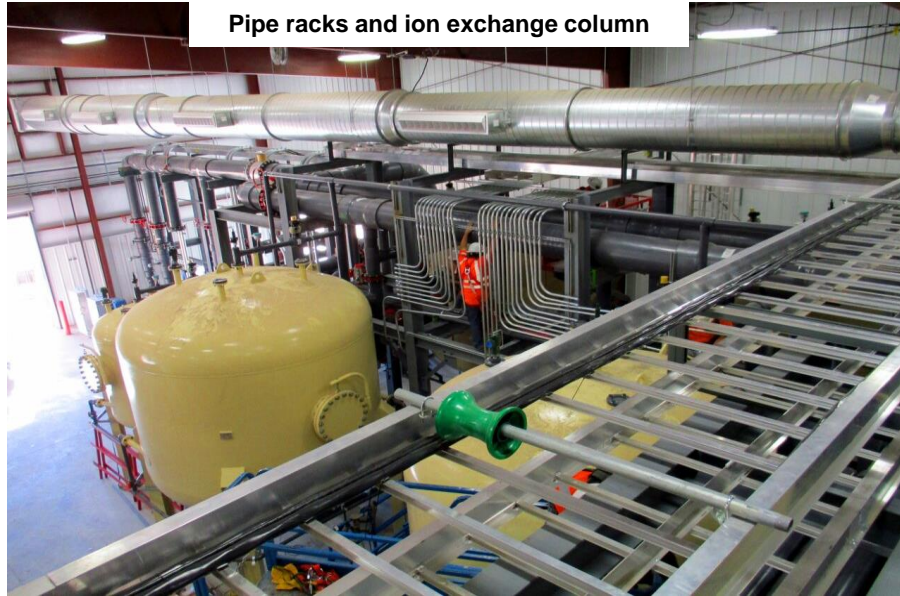
Senior construction engineer with leading US engineering firm in design and construction management of ISR facilities in North America ([www.treccorp.com](http://www.treccorp.com))

# Lance Plant Housing

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# Lance Plant



Pipe racks and ion exchange column



Ion exchange columns



Piping inspection



Piping and valves from waste tank to DDW

Resin transfer water pumps installed in CPP



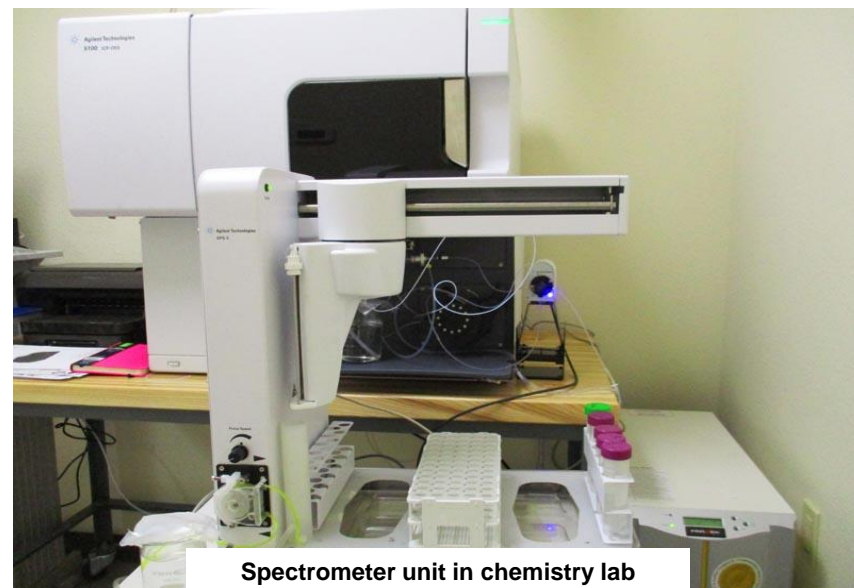
Chemistry lab



Controls for carbon dioxide storage tank



Spectrometer unit in chemistry lab



# Well Field Development Drilling

Production well drilling



# Well Field Development



Inside header house



Trunkline from CPP to well fields



Oxygen injection system

# Ion Exchange Columns



# Loaded Resin Trailer

