

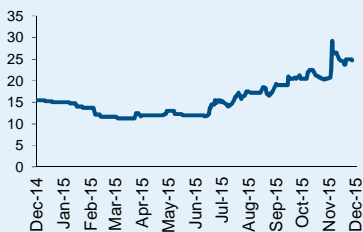
Buy

Price 25p
Target Price 100p

Reuters/BBG Index BKY.L / BKY LN
Index FTSE AIM
Sector Mining
Market Cap £43m
Shares in Issue 180m
NAV 7.8p
Gearing NA
Interest Cover NA

Performance Absolute
 1 month: 20.0%
 3 months: 40.5%
 12 months: 58.7%
High/Low 31.9p / 10.9p

Last Results Sept Q1 – Oct 15
Next Results Dec Q2 – Jan 16
Next Event Feasibility Study



Source: Capital IQ

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*WH Ireland acts as NOMAD and Joint Broker to Berkeley Energia
 #WH Ireland makes markets in Berkeley Energia

Marketing Communication

This document has not been prepared in accordance with legal requirements designed to promote the independence of investment research. Please refer to important disclosures towards the end of this document.

Berkeley Energia*#

First mover – commencing construction mid 2016

Berkeley Energia has a globally significant uranium deposit in Spain – at peak production this one mine will be in the top 10 global producers and a significant source of uranium for the European Union which imports over 95% of its uranium requirements. The recent discovery and definition of the high grade Zona 7 deposit has transformed the economics of its flagship Salamanca project and blown the district wide open for further high grade discoveries. With a low capital and operating cost, given the infrastructure-rich location in Spain, the Salamanca project is one of only a small number of projects that can be brought into production at the current low uranium price. Given the long lead time to get new projects development ready, Berkeley's permitted project is well placed to benefit from the significant rise in uranium prices over the medium term and deliver high returns to shareholders. Information on the funding mix, positive news on the uranium price and commencement of construction will be the key catalysts to drive the share price over 2016. Funding and construction are the key to unlocking the value in the deposits, with the magnitude of any returns driven by expected increases in the uranium price and the discovery potential in the area. We initiate with a Buy recommendation and a target price of 100p.

The Salamanca project in West Central Spain is comprised of three principal deposits (Retortillo, Zona 7 and Alameda) which will supply the Retortillo plant and produce up to 5Mlbs uranium per year; at this level of production the Salamanca project will be a global top 10 producer. The deposits will be shallow open pits processed by a conventional leach recovery plant to produce yellow cake.

Low Capital and operating costs define this globally significant project This part of Spain hosts superb infrastructure in terms of transport links, utilities and an eager labour pool. It is this location which drives the low initial capital cost – US\$81m for the Retortillo mine and plant. The low capital intensity of this project means that it is one of only a handful that can contemplate funding in these constrained capital markets and can generate a return at current uranium prices.

The funding mix (debt and equity) leading to construction will unlock the value in the deposits with further expected value derived from an increase in the uranium price on fundamental anticipated demand (new reactors and restarts).

There is also the potential to define new high grade uranium deposits within 10km of the Retortillo plant following the recognition of the controls on mineralisation at Zona 7; which has opened up a significant new area. Berkeley has first-mover advantage in this fertile area and has licences covering the best ground. The discovery of another deposit with the high-grade and amenable metallurgical characteristics of "Zona 7" within trucking or conveyor distance of an existing plant could have a large impact on returns.

There is considerable local support in the area for the project and with this being an old uranium mining district (The Mina Fe mine operated from the mid-1970s until the early 2000s) the local population and authorities have seen the full cycle of a uranium mine. The project is now permitted (barring a few local construction permits) and is actively beginning to define the ways it can fund the project, with, we believe, some serious offers on a debt portion of the capital required.

We initiate with a Buy recommendation and a share price target of 100p. This is derived from a Discounted Cash Flow NPV₁₀ using a US\$65/lb uranium price and cost inputs from Berkeley (and benchmarked). We include an allowance for cash and expected corporate and exploration costs over the life of mine. Funding is clearly the main risk, though with a compelling project and supportive shareholders should be achievable.

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Investment Case

Buy – 100p price target

One of the key features of the Salamanca project is the existence of high quality infrastructure in place. The area is **development ready** at no cost to Berkeley

Berkeley Energia has an advanced uranium project in Spain near Salamanca. The project shows robust financial returns at a low capital and operating cost and can make a return at current uranium prices – one of only a handful around the world that can do so. We initiate with a Buy recommendation and a share price target of 100p and **look to the commencement of construction to unlock this value. Going forward, we see a good prospect in increasing the mine life and an improving uranium price to drive our valuation further.** As it is the Salamanca project is a globally significant project which would be a top 10 producer.

Infrastructure and logistics are some of the many benefits to the project This existence of good roads, utilities (electricity and water) and a pool of skilled labour help define the low capital cost of the project.

- Roads – the project is very well connected to local highways with great access to the capital and beyond. All deposits are already connected to sealed roads
- Grid power – already connected to site (a small spur is required for Alameda), with minimal upgrading necessary. Will be supplied at a cost of \$0.10/kWh
- Acid – domestically available, with two huge base metal smelters in country which exports the majority of their sulphuric acid; Glencore (San Juan de Nieva zinc refinery) and Freeport (Atlantic Copper in Huelva).
- Water – no issues, local water available and from the dewatering of the open pits.

Low capital and operating cost The level and quality of the infrastructure in the area helps make this one of the lowest capital cost projects in the world (capital cost and capital intensity). With the grade of the deposit it will also be one of the lowest operating cost producers.

A new understanding of the 'game-changing' Zona 7 deposit The Zona 7 deposit as defined by Berkeley this year is one of the key reasons for the improvements in economics since the first PFS in 2013. Zona 7 is higher-grade and lower strip than the other two defined deposits. It is also close to the proposed plant at Retortillo and a conveyor can take ore (and returned ripios) between mine and heap leach pads.

Significant exploration upside Zona 7 does not have a very strong surface radiometric anomaly and therefore its definition has opened up many new areas in the licence to further exploration (Figure 7) based on structural and lithological understanding. With this in mind, Berkeley has planned an 11km greenfields exploration programme in 2016 – all within 10km of the Retortillo processing plant. It will focus on testing 6 high-impact targets, with the goal of adding ~50Mlbs in resources.

Operator advantage Berkeley is the only explorer in this revitalised uranium district and has tied up the most promising geology in licences.

Good metallurgical characteristics All deposits in the area have a short leach cycle time and from test work are set to extract 85% of the uranium

Don't underestimate the power of local support This is not a new (uranium) mining district. Previously, the Mina Fe uranium mine operated, between 1974 and 2000. The locals have seen the benefits of mining for jobs and a mine has already been decommissioned; a full life cycle of a uranium mine has been seen.

Recent permitting success regionally and nationally One tungsten mine is operating in the region (Los Santos) and one has been recently permitted (Ormonde's Barruecopardo project). With unemployment in the region running at ~30% the Salamanca project has the potential to provide 450-500 direct jobs with the regional multiplier and cash injection into the local area that this can provide.

Uranium supply / demand outlook bullish We remain bullish on the fundamentals for uranium, and the Salamanca project is one of the few projects globally which can get underway at current prices. We see the medium-term upside in the price which would uniquely place Berkeley's project to benefit from rising prices on commissioning.

There are few development stage uranium projects which can match the investment quality of Berkeley's Salamanca project and few others which can boast the continuous news flow and pathway to production we anticipate from the project.

Valuation

Valuation based on JORC Measured and Indicated Resources only

We initiate with a Buy recommendation and an 100p price target

Calculated IRR of 82%.

We value Berkeley Energia using a discounted cash flow on the recently announced (4 Nov 2015) update to its prefeasibility study which included the impressive Zona 7 deposit for the first time. The cash flow and assumptions are presented below in Table 5 and 6. We also include an allowance for cash on hand and a DCF of our estimate on ongoing corporate administration costs and regional exploration to discover more “Zona 7’s”. We initiate with a Buy recommendation and a price target of 100p. Our valuation uses only 30% of our calculated NAV for the Salamanca project as the project is at Prefeasibility Study level and as yet is unfunded. We will unwind our risk factors as the company takes the necessary steps to improve confidence in these areas – and has stated it is fast tracking studies and negotiations to complete this with an aim of beginning mine and plant construction in mid-2016.

Table 1 BKY Mining – Valuation Summary Base Case

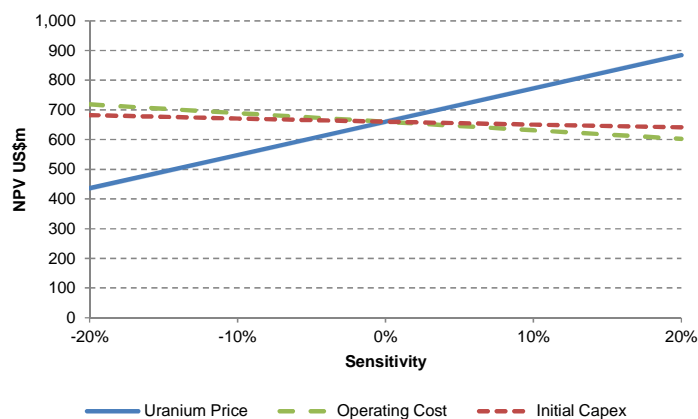
Asset	Value – US\$m	Value - £m*	Risk	GBp/share**
Salamanca Project (NPV ₁₀)	736.0	474.8	0.3	122.4
Berkeley Corporate Costs (NPV ₁₀)	(55.3)	(35.7)	1.0	(30.7)
Cash and cash equivalents***	9.0	5.8	1.0	5.0
Berkeley Energia Valuation	689.6	444.9		96.7

Source: WH Ireland Research

*Exchange Rate US\$:£ 1.55 A\$: US\$ 0.75, ** Based on 180m shares in issue

*** WH Ireland Estimate

Figure 1: Salamanca Project – Base Case Sensitivity



Source: WH Ireland research

Plenty of upside identified – internal and external factors

Unrisked our target price (and assuming no dilution) would be 380p. By funding and initiating construction Berkeley can move along the path and unlock an upside to our target.

Our cash flow model is most sensitive to uranium price as Figure 1 shows. Assuming the uranium price does not increase to our long-term US\$65/lb and the price remains in the current range US\$35-39/lb our valuation for the Salamanca Project would fall to US\$260m which would reduce our target price to 32p still a premium to the current share price.

We feel the market is pricing in current spot uranium prices to the share price and ignoring the likely upside in price we feel has to come through on fundamentals.

Upside to the Valuation

There are upsides to our base case valuation

Uranium Price is the most obvious upside. The longer the uranium price stays low there will be little new production to fulfil anticipated demand. There may even be shortage of metal which could lead to a price spike or options to tie up term material with consumers. This would be in the period of peak production from the current mine plan at Salamanca. **At a price of US\$80/lb** over the life of mine (20% upside to the uranium price used in our base case) then our (risked) **share price target would be 135p**

Additional Zona 7 mineralisation. If another Zona 7 could be found with 10km of the Retortillo plant with 7-years additional high-grade production and a mine life of 25 years the increase in value is obvious and our **share price target would also rise to 135p**.

Mining and processing of Inferred resource. The PFS assumes no Inferred resources in the mine plan or no additional ore from the currently defined open pits. If these resources could be converted to Indicated or Measured status, particularly that from Zona 7, then the implications on increased mine life and resultant improved cash flow and price target are obvious. The Inferred Resource currently accounts for an additional ~50% of uranium that could be mined.

Risk

There is always risk in the Junior mining sector

Whilst funding is a key risk, the total capital requirement is low and the company has a very strong and supportive shareholder base including Resource Capital Funds (RCF), BlackRock and First State.

Permits granted barring a few local permits – not seen as a risk

Low construction risk – simple plant and shallow mines

We see plenty of upside in the price

Berkeley Energia is a junior mining company, though one which is making the right progress moving from explorer to developer status. However, investing in the company does carry certain risks – many in common with similar companies. We highlight the most significant risks as we see them below.

Funding is a key risk The current capital markets are not easy for mining, but the robust economics of the Salamanca should help buck the general mining malaise. There is potential international support for the project and management state that they have received numerous financing offers for the project. We feel that there will be support from institutions for any equity portion of the capex – existing shareholders include Resource Capital Funds and BlackRock - as well as available debt solutions – which may well be helped by EU guarantees on a portion of the debt. Salamanca could become only the second source of uranium within the European Union (other than a small Czech mine) and its strategic delivery of uranium concentrate into an area with over 130 nuclear reactors and several upgrading facilities would be very welcome.

Permitting risk negligible as unprecedented local support for the mining project The project has received all of its permits barring some local construction permits. We see these as a formality. The project has tremendous support locally and has received a huge number of applicants for its first advertised jobs in what is a relatively poor area. It is also an area that a) understands the benefits of mining and b) has already seen a uranium mine discovered, commissioned and rehabilitated at Mina Fe. The plan to bury leach ripios and reprofile the open pits when mining is completed makes this development very sympathetic to the local environment. There will be no large concentrations of radioactive material in tailings and with a recovery of 85% of the uranium the area will be considerably less radioactive than if the uranium deposits were never disturbed.

Construction risk also believed to be low In common with all mining projects globally there is always construction risk. However, in the case of the Salamanca project the risk is mitigated by the Spanish project management team who can point to their contribution in the development of several successful mine projects namely El Vale gold project in Asturias in NW Spain and Aguablanca nickel project in Extramadura in Southern Spain.

Low operating risk The uranium mineralisation in the area is shallow with only low to moderate stripping ratios with a very simple (and tried and tested) process route.

Price risk is low From our understanding of the future supply demand situation for uranium globally the risk of uranium price on the project is low. Even at a current spot price of ~\$38/lb the project makes a significant NPV using our price and other assumptions (Table 3 and Table 7); it is the only project globally that does.

Figure 2: 2014 Production by Country

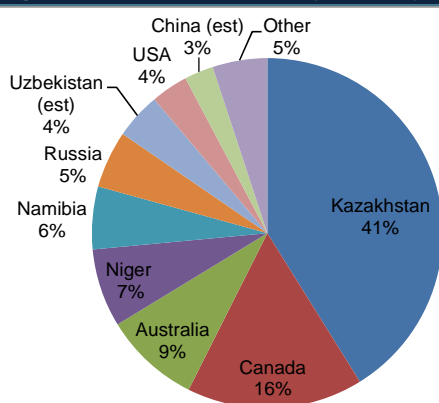


Figure 3: 2014 Production by Company

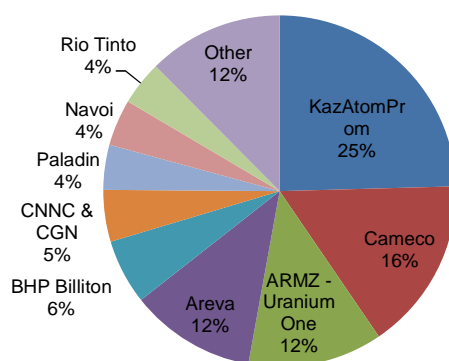


Table 2: 2014 Production by Mine

Mine	Production 2014
McArthur River (Cn)	7.4kt
Tortkuduk & Myunkum (Kz)	4.3kt
Olympic Dam (Au)	3.4kt
SOMAIR (Niger)	2.3kt
Budenovskoye 2 (Kz)	2.1kt
South Inkai (Kz)	2.0kt
Priargunsky (Rs)	2.0kt
Langer Heinrich (Namibia)	1.9kt
Inkai (Kz)	1.9kt
Central Mynkuduk (Kz)	1.8kt
Total Top 10	29.1kt
Total World	56.2kt

Source WH Ireland research, World Nuclear Assoc.

Uranium

Chemical symbol – U

Atomic Number 92

Six naturally occurring isotopes: U_{233} to U_{238} . In nature mostly U_{238} (99.3%) and U_{235} (0.7%) with very minor U_{234} .

Density 70% higher than lead, only slightly lower than gold and tungsten

Uses: nuclear power (power stations and marine propulsion – e.g. submarines), nuclear weapons and as a glass colorant. It is also used in small reactors to create the short-lived radionuclides used in medicine and hospitals and which also have a use in agriculture and food preservation.

Depleted uranium (that which is nearly pure U_{238}) is used to tip conventional weapons to penetrate armour due to its density.

Power

1kg of U_{235} can produce 20 terajoules of power – equivalent to 1500t of coal

In terms of power – nuclear accounts for ~11% of global electricity generated.

The European Perspective

In the 28 countries of the EU, 14 countries generate power in 131 nuclear reactors. Nuclear accounts for just over 25% of all power generated in the whole of the EU₂₈ and consumes roughly 25% of the world's uranium supply annually (~15kt).

Despite the reliance on nuclear generation there is only one mine in the EU (in the Czech Republic – Rozna – ~0.2kt/a due to close in 2017) and the EU is reliant on imports from Kazakhstan, Canada, Russia, Sub-Saharan Africa (notably Niger) and Australia.

There is less than 3-years consumption stockpiled in the EU; imports generally account for consumption year-on-year.

The implications of a producer in Spain capable of supplying 2.4kt/a uranium on EU energy security is obvious.

Uranium Market

The supply of enriched uranium for the power industry dominates the demand for uranium and the growth in the number of new nuclear power plants will drive the growth in the medium- to long-term demand for uranium. Despite the potential risks from generating electricity from nuclear power (post Long Island, Chernobyl and Fukushima) nuclear is a growing industry as it is low-carbon, reliable and long-lasting and acts as base load capacity. A typical nuclear reactor can run at full utilisation for 12-18 months from one single load of uranium fuel.

There are 20 countries where nuclear is a significant portion of electricity generating capacity (in nearly 450 reactors - 370GWe using 78kt of uranium oxide concentrate annually = 66kt of uranium) and there are currently over 60 generators being built (mostly in China, Russia, South Korea and India). There are also several countries where new nuclear generating capacity is required to replace or supplement existing capacity (e.g. UK). Some countries have a desire to exit nuclear power generation (e.g. Germany and Japan) but may be delayed by the problems in finding a suitable, cost-effective alternative.

Primary uranium production is concentrated in the hands of 9 mega producers who produce 90% of global uranium supply. However, there is ever increasing geopolitical risk to production; unstable areas (sub-Saharan Africa) or government restrictions on new nuclear mining (Australia). Primary uranium production is required to grow from 155Mlbs today to 230Mlbs by 2024 to feed the expected ~520 reactors then in operation. Demand for primary uranium was 147Mlbs in 2014 with the remainder from secondary supply.

There is some secondary supply in the uranium market which comes from stockpiles, the supply from the Russian Highly-Enriched Uranium (HEU) deal which supplied 24Mlbs into the market each year to 2013, government stockpiles, stockpiles from energy companies, recycling depleted uranium and input from MOX reactors.

Uranium Price Forecast

The recent market has been characterised by over supply as Japanese reactors significantly curtailed uranium purchases following Fukushima, leading to global oversupply and depressed prices. These factors will decrease over the short-term leading to what we see will be an undersupplied market which will have a positive impact on prices. This situation has been exacerbated by the low price which has not incentivised new production to come into the market – there are few projects able to make a return at current spot price below US\$40/lb.

Short-term we see continued uncertainty in the scale of Japanese reactivation of its nuclear generating capacity. We feel that the majority of the reactors will come back, but timing is uncertain which will weigh on price. Tradetech estimates that of the 51 reactors in operation in Japan in 2011, a total of 33 will be recommissioned by 2021.

What we are certain about is that the longer the Japanese take to resume full nuclear power generation the longer the price will remain depressed and the bigger the resulting spike in the uranium price will be when utilities return to the market. Longer-term we see the price having to move to between US\$60-US\$70/lb to incentivise the new primary production required, but there may be a price spike before settling to our longer-term price. Berkeley is superbly placed to benefit from any price spike, but also benefit from higher prices in the medium-term as it is one of only a handful of projects that can generate returns (and hence be funded) at current prices.

At WH Ireland we use consensus forecasts for this year and next then trending to our own long-term price based on our understanding of the incentive price and the supply/demand dynamics going forward (Table 3).

Table 3: WH Ireland Price Forecast (US\$/lb)

	2014A	2015E	2016E	2017E	Long-term
Uranium Price (US\$/lb)	34	38	42	55	65

Source: WH Ireland Research

Berkeley Energia

Berkeley Energia is listed on the ASX (ASX:BKY) and AIM (AIM:BKY). The company name was changed from Berkeley Energy to Berkeley Energia shortly following an AGM resolution 27 November 2015.

The company was listed in Australia and has been exploring in Spain since 2005. The recent appointment of CEO Paul Atherley (formerly Leyshon Resources) has added new impetus to the project and the timing of his appointment coincided with the discovery of the high-grade resource at Zona 7 – which has transformed the economics of the project.

Salamanca Project

Location

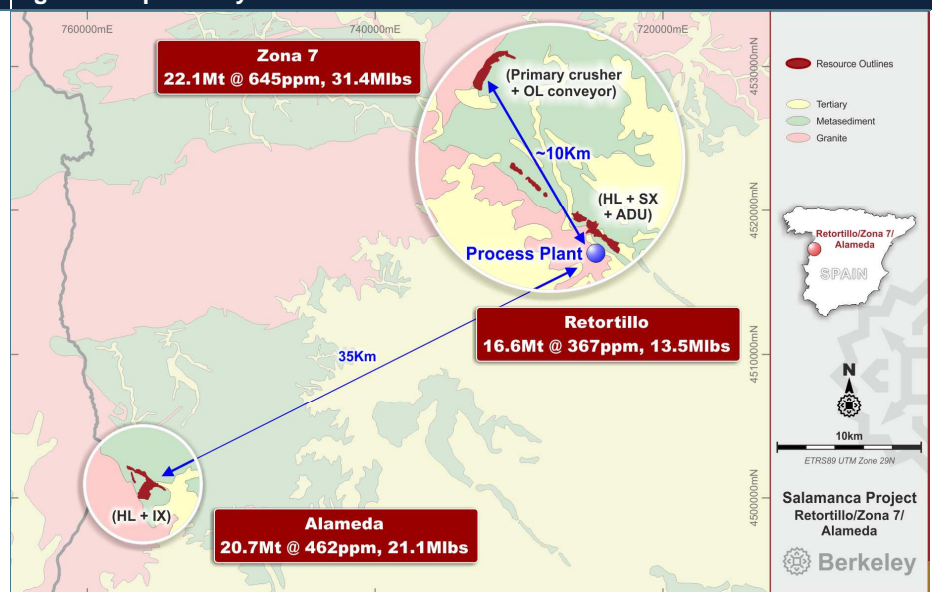
Salamanca project has the potential to be a major producer in a very prospective district – potential for further deposits and potentially a second production centre

The Salamanca project is located NW of Salamanca in Western Spain. At full production producing 2.4kt/a (4.5mlb at steady state) uranium the mine would be in the top 5 single producers in the world (2014 production) and propel Spain into the top 10 global producing nations. It is a project with tremendous potential.

Figure 4: Salamanca Project Location



Figure 5 Deposit Layout



Source: WH Ireland Research, Berkeley Energia

Geology and Mineralisation

Pitchblende (uraninite) – UO_2

Coffinite - $U(SiO_4)_{1-x}(OH)_{4x}$

Autunite - $Ca(UO_2)_2(PO_4)_2 \cdot 10-12H_2O$

The discovery of Zona 7 has opened up many areas of further potential in the licences – a new exploration program is beginning to assess other potential “Zona 7”s to extend the mine life

The uranium deposits in the Salamanca area can be classified as ‘vein-type’ uranium deposits. The uranium, in the form of coffinite, pitchblende (uraninite) and lesser autunite, is hosted by Ordovician black slates adjacent to Hercynian / Variscan granitic intrusives. The black slates and granites are variably overlain by thin Tertiary sediments which can mask the radioactive signature from below.

To discover the recent “Zona 7” deposit the underlying mineral deposit genesis model has been updated to understand the localisation of the mineralisation and open up the rest of the licence for further exploration. It is thought that the deposits were formed by late Alpine hydrothermal fluids (percolating meteoric water) which heated up and remobilised uranium from the black slates (locally high in uranium) and concentrated it in structures such as faults, fractures and stockworks. The structures trend WNW – ESE and are brittle structures related to the late Alpine movement (65ma – 2ma) of the black slates against the granites, often reactivating existing Hercynian / Variscan structures. The mineralisation at Mina Fe has been dated at 35ma and the mineralisation at Retortillo is probably of a similar age.

Resources

The Salamanca project is composed of several deposits; chiefly the Retortillo, Zona 7 and Alameda deposits. The recent PFS update uses only the Measured and Indicated portions of these resources (outlined in green in Table 4 below).

Table 4: Salamanca Project Resources and Reserves (JORC)			
	Tonnage Mt	Grade U ₃ O ₈ ppm	Contained U ₃ O ₈ Mlbs
Measured			
Retortillo	4.8	412	4.4
Indicated			
Retortillo	11.7	349	9.0
Zona 7	17.1	735	27.8
Alameda	20.0	455	20.1
Inferred			
Retortillo	0.2	373	0.1
Zona 7	4.9	333	3.6
Alameda	0.7	657	1.0
Gambuta	12.7	394	11.1
Retortillo Satellites	2.8	492	3.0
Alameda Satellites	9.1	472	9.5
Total Salamanca Project			
Measured	4.8	412	4.4
Indicated	48.8	528	56.8
Inferred	30.4	422	28.3
TOTAL	84.1	483	89.5
Total Resource used in PFS	53.6	518	61.2

Source: WH Ireland Research Berkeley Energia

Mining

*Shallow open pits. Low stripping ratios
– Life-of-mine 1:1.18 :*

Retortillo – 1:2.7

Zona 7 – 1:10

Alameda – 1:1.8

Mining will be by open pit over an initial period of 17.5 years. Beginning at Retortillo, then in year 2 ore from Zona 7 and year 3 from Alameda to replace ore from Retortillo. Retortillo will resume production from year 9 following completion of Zona 7.

Mining will be conventional drill and blast open pit with bench heights of 6m carried out by contractor. Leached ore will be returned to the open pits with waste and leached ore backfilling the pits as mining advances; this will reduce material rehandling and minimise waste dump volumes.

Processing

Ore from Retortillo will be put straight into the crushing circuit on site. Ore from Zona 7 will be primary crushed on site and conveyed 10km to the Retortillo site joining the main circuit at the secondary crusher. Pregnant leach solution (PLS) from Alameda will be loaded onto resin and trucked 50km to Retortillo.

A standard processing route will be followed at Retortillo with crushing, screening, agglomeration, stacking and heap leaching using on-off leach pads. The leach pads at Retortillo will have the capacity for 3.3Mt, whilst at Alameda 5.0Mt. Acid consumption is estimated at 18kg/t ore for Retortillo and Alameda ore with 12kg/t for Zona 7 ore.

Leaching will be followed by uranium recovery and purification using solvent extraction (SX). The final product from the plant will be U₃O₈ (“yellow cake”) produced by adding anhydrous ammonia to the concentrated uranium solution from the SX plant creating ammonium diuranate (ADU) which is then calcined.

85% uranium recovery is expected as shown from testwork with no levels of impurity which would attract a penalty.

Agglomeration using raffinate and sulphuric acid.

Stacking in 6m lifts using a radial stacker and a leach cycle of 140 days for 85% recovery.

Next Stage Processing

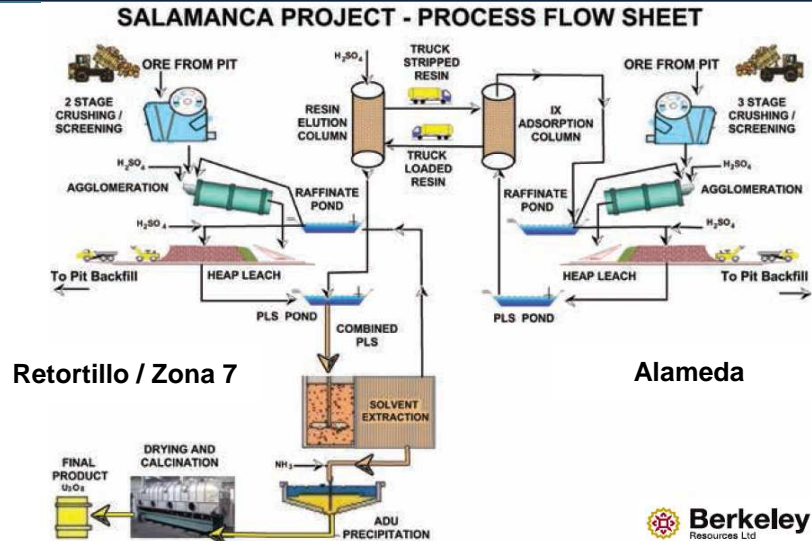
The yellow cake is sent off for enrichment. Naturally occurring uranium deposits contain ~99.3% U_{238} and ~0.7% U_{235} . For power production the proportion of U_{235} must be enriched to 3.0-5.0%, while for naval reactors this is 20-30% and for nuclear weapons this must be increased to between 50-90%.

U_{235} has a half-life of 703.8Ma and is the only naturally occurring element in sufficient quantities to sustain a fissile chain reaction. Neutrons released by an atom of U_{235} must impact other U_{235} atoms to sustain the nuclear chain reaction. The concentration and amount of U_{235} needed to achieve this is called a 'critical mass'. For U_{235} this is 52kg and with a correspondingly greater mass for a lower enrichment (e.g. 20% U_{235} critical mass is 400kg)

The remaining bulk of the uranium after reprocessing is mostly U_{238} and has a low level radioactivity (U_{238} has a half-life of 4.5Ba – the age of the earth).

Enrichment takes place by isotope separation using a variety of processes. It is difficult to achieve as the different isotopes behave chemically the same, so the slight differences in mass must be used.

Figure 6: Simplified Flow Sheet



Source: Berkeley Energia

Infrastructure

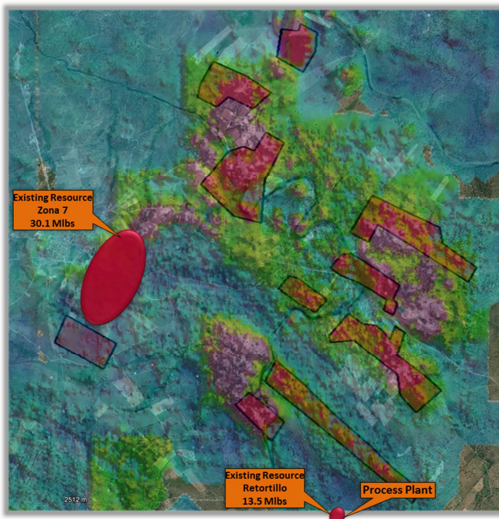
One of the keys to the economics at the Salamanca project is the level of infrastructure available at no cost to the company. This is not a remote deposit, but one which enjoys very well developed transport infrastructure, utilities (electricity and water) and labour pool.

Power requirements are low and will be met from the National Distribution Grid at a cost of US\$0.10/kwh. Retortillo and Zona 7 lie very close to the grid, with only a 13km power line required to connect Alameda.

Sulphuric acid is readily available from two regional sources (San Juan de Nieva in Northern Spain and Huelva smelter in Andalucía) and is expected to cost ~€100/t.

Further Exploration

Figure 7: Satellite potential around Retortillo and Zona 7



Source: Berkeley Energia

The discovery of the higher-grade mineralisation at Zona 7 is a game changer for exploration targets in the area. There is a small radioactive anomaly on Zona 7, with the radioactive signature masked by cover. This creates a number of new targets in the area based on an interpretation of the structures which host Zona 7 guided by radioactive anomalies. Berkeley are seizing the initiative and have a €0.8m exploration program planned over the next 6 months to find "new" Zona 7's within conveyor / truck of the plant at Retortillo. If these new orebodies can be discovered and defined it creates a tremendous opportunity to maintain production at the levels that can be achieved during the operation of Zona 7 (Table 6) with the associated levels of EBITDA that could be achieved.

WH Ireland Model Cost Inputs

Mine Life – 18 years on Measured and Indicated Resources

Construction to begin 2016

First uranium production 2017

Mine life 18 years to 2034 – additional production is expected past this as a) inferred resources are reclassified and brought into the mine plan and b) new Zona 7's are discovered. These are expected but not modelled

Capital to First production US\$81m

Assumed capital raise (equity and/or debt funding) of US\$135m – upfront capital for Retortillo and Zona 7. Model assumes 2/3 debt / equity

Total Capital Cost US\$200m (including capital for Alameda)

Assumed interest rate at 8% on debt portion repaid over 5 years

Production Profile

Retortillo production followed by Alameda and Zona 7 production. Zona 7 for 7 years then Retortillo back into production before Zona 7 stockpiled material in year 18.

Magnitude of production and cash flow during the years of Zona 7 operation show the effect this important deposit has on the economics of the whole project

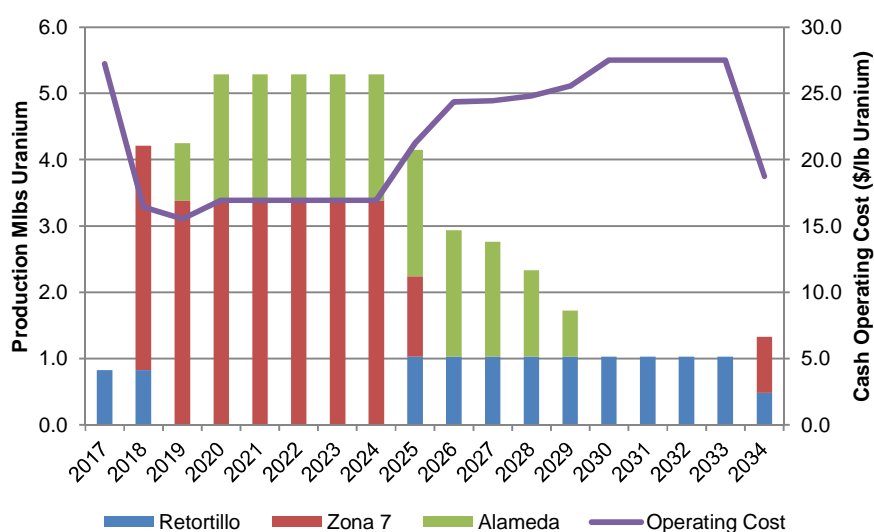
Cash Flow and Model Inputs

Our cash flow for the Salamanca project is shown below in Table 5 with the assumptions used in the side bar.

Table 5: Simplified Cash Flow

Production Year		1	2	3	4	5	10	15	
Year		2016	2017	2018	2019	2020	2021	2026	2031
Ore Processed	kt	1200	4000	3800	5000	5000	3700	1500	
Grade	g/t U	367	562	597	564	564	423	367	
Recovery	%	85	85	85	85	85	85	85	
Uranium Produced	Mlbs	0.8	4.2	4.3	5.3	5.3	2.9	1.0	
Uranium Price	US\$/lb	42.0	55.0	65.0	65.0	65.0	65.0	65.0	
Net Revenue	US\$m	46.1	277.7	280.4	348.9	348.9	193.7	68.1	
Mine site Operating Cost	US\$m	(21.9)	(65.9)	(61.3)	(82.3)	(82.3)	(66.1)	(27.6)	
Royalties	US\$m	(0.5)	(3.3)	(4.7)	(7.2)	(7.2)	(5.4)	(0.8)	
EBITDA	US\$m	22.9	204.5	210.2	254.2	254.2	119.4	38.7	
Depreciation	US\$m	(4.6)	(18.9)	(19.0)	(22.9)	(22.9)	(14.1)	(6.9)	
Interest	US\$m	(7.2)	(5.8)	(4.3)	(2.9)	(1.4)	-	-	
Tax	US\$m	(2.8)	(45.0)	(46.7)	(57.1)	(57.5)	(26.3)	(7.9)	
Net Profit After Tax	US\$m	8.3	134.9	140.1	171.3	172.4	79.0	23.8	
Add back in DDA	US\$m	4.6	18.9	19.0	22.9	22.9	14.1	6.9	
Expansion Capex	US\$m	(52.0)	(83.3)	(70.1)	(2.1)	-	-	(16.2)	
Sustaining Capex	US\$m	(1.5)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	(3.0)	
Salamanca CASH FLOW	US\$m	(52.0)	(64.7)	80.6	154.1	191.2	192.3	90.0	11.5
Operating Cost	US\$/lb	27.2	16.4	15.5	16.9	16.9	24.3	27.5	

Source: WH Ireland research

Figure 8: Production and Cost

Source: WH Ireland research

Directors and Management

Ian Middlemas - Non- Executive Chairman - is a Chartered Accountant and has been in commerce for over twenty five years. He was previously Chairman of Mantra Resources Limited, an African-focussed uranium exploration and development company, and is also a director of a number of other publicly listed companies.

Paul Atherley – Managing Director - is a Mining Engineer from Imperial College with an MAppSc and MBA. He served as Executive Director of the Investment Bank arm of HSBC Australia and completed numerous acquisitions and financings of resource projects in Australia, Asia, Africa and Europe. As the Managing Director of Leyshon Resources Limited, Mr Atherley was responsible for the exploration, development and successful sale of the Zheng Guang Gold-Zinc Project in China. He was the Chairman of the British Chamber of Commerce in China and Vice Chairman of the China Britain Business Council in London and has wide ranging international media experience.

James Ross – Non Executive Director - is a leading international geologist whose technical qualifications include an honours degree in Geology at UWA and a PhD in Economic Geology from UC Berkeley. He worked for Western Mining Corporation for 25 years and was then Managing Director of World Geoscience and Odin Mining Investment Company and has held numerous directorships for listed resources companies.

Robert Behets – Non Executive Director - is a geologist with over 24 years experience in the mineral exploration and mining industry in Australia and internationally. Most recently he was instrumental in the founding, growth and development of Mantra Resources Limited, an African-focused uranium company, through to its acquisition by ARMZ for approximately A\$1billion in 2011. Prior to Mantra, he held various senior management positions during a long career with WMC Resources Limited.

Dylan Browne – Company Secretary - is a Chartered Accountant and Chartered Secretary who commenced his career at a large international accounting firm and has since worked in the corporate office of a number of listed companies that operate in the resources sector.

Francisco Bellón – General Manager Operations - is a Mining Engineer with over 20 years' experience in project management and operations including more than a decade in senior management roles with TSX listed Rio Narcea Gold Mines prior to its takeover by Lundin Mining. At Rio Narcea he gained experience in the development, construction, commissioning and operation of new mines in Spain and West Africa including El Valle-Boinás (Au-Cu), Carlés (Au-Cu), Tasiast (Au) and was Operations Manager and General Manager of the Aguablanca Ni-Cu in Spain. He later joined Duro Felguera, a large Spanish engineering house, as Manager of the Mining Business, overseeing the peer review, construction and commissioning of numerous large scale mining operations in Africa and South America.

Javier Colilla – Senior Vice President Corporate - is an Economist and Lawyer and holds an MBA. He has prior experience in auditing and insurance and over 25 years' experience in the mining sector commencing at Anglo American as General Manager of their Spanish subsidiaries where he dealt with projects in Europe and South America. He held various executive roles with TSX-listed Rio Narcea Gold Mines including VP Business Development, CFO and Senior VP Corporate where he was involved in commercial, legal, joint ventures, permitting, stakeholders and financings for mining operations in Spain and Mauritania including El Valle-Boinás (Au-Cu), Carlés (Au-Cu), Aguablanca (Ni-Cu) and Tasiast (Au).

Hugo Schumann – Commercial Manager - commenced his career as a management consultant before moving into the natural resources sector, initially as part of an investing team in London focused on early stage mining projects and then working in corporate development functions for a number of listed mining and energy companies. He has a decade of experience in the financing and development of mining and energy projects globally across a range of commodities. He holds an MBA from INSEAD, is a CFA Charterholder and holds a Bachelor of Business Science (Finance CA) from the University of Cape Town.

Shareholders

Table 6: Substantial Shareholders (October 2015)

Name	Shareholding (%)
Anglo Pacific Group	30.2m (16.7%)
Hadron Capital	14.2m (7.8%)
Resource Capital Fund	13.0m (7.2%)
Commonwealth Bank of Australia	10.3m (5.7%)
Global X Management Company	9.4m (5.2%)
Total Berkeley Energy	180.4m (100%)

Source: WH Ireland Research, Berkeley Energia

Figure 8: Zona 7 core – uranium mineralisation in fractures (yellow uranium oxides in weathered zone – near coin)



Source: WH Ireland research

Disclosures

WH Ireland Recommendation Definitions

Buy

Expected to outperform the FTSE All Share by 15% or more over the next 12 months.

Outperform

Expected to outperform the FTSE All Share by 5/15% over the next 12 months.

Market Perform

Expected to perform in line with the FTSE All Share over the next 12 months.

Underperform

Expected to underperform the FTSE All Share by 5/15% or more over the next 12 months.

Sell

Expected to underperform the FTSE All Share by 15% or more over the next 12 months.

Speculative Buy

The stock has considerable level of upside but there is a higher than average degree of risk.

Share Price Target

The share price target is the level the stock should currently trade at if the market were to accept the analyst's view of the stock and if the necessary catalysts were in place to effect this change in perception within the performance horizon.

Stock Rating Distribution

As at the quarter ending 30 September 2015 the distribution of all our published recommendations is as follows:

Recommendation	Total Stocks	Percentage %	Corporate
Buy	55	75	42
Speculative Buy	15	21	14
Outperform	1	1	0
Market Perform	1	1	1
Underperform	1	1	0
Sell	1	1	0
Total	74	100	57

This table demonstrates the distribution of WH Ireland recommendations. The first column illustrates the distribution in absolute terms with the second showing the percentages.

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This research is classified as being "non-independent" as defined by the FCA's Conduct of Business Rule 12.3. Please refer to www.wh-ireland.co.uk for a summary of our conflict of interest policy.

*WH Ireland acts as Nomad and Joint Broker to Berkeley Energia

#WH Ireland makes markets in this company

WH Ireland has acted as manager in the underwriting or placement of securities of this company within the last 12 months.

Within the past 12 months, WH Ireland has received compensation for investment banking services from this company.

Analyst Certification

The research analyst or analysts attest that the views expressed in this research report accurately reflect his or her personal views about the subject security and issuer.

Companies Mentioned

Company Name	Recommendation	Price	Price Date/Time
Berkeley Energia	Buy	24.6	31/11/2015

Summary of Company Notes

Headline	Date
First mover – commencing construction mid 2016	01/12/2015

Summary of Security Recommendations

Recommendation	From	To	Analyst
Buy	01/12/2015	-	CA

Current Analyst (CA), Previous Analyst (PA)

Disclaimer

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Berkeley Energia AIM:BKY
Share Price: 25p
Dated: 30 November 2015
Market Capitalisation £43m
Recommendation: Buy
Target Price 100p

Key Ratios / Metrics	2014A	2015A	2016E	2017E	2018E
EPS (clean) *	(4.2)	(4.4)	(3.2)	0.6	28.4
PE	NA	NA	NA	38.6x	0.9x
FCFPS	(4.0)	(3.7)	(1.5)	39.8	66.2
Dividend / share	-	-	-	-	-
Dividend Yield	-	-	-	-	-
ROCE	-	-	-	-	-
EV/EBITDA	NA	NA	NA	38.1x	1.1x
Weight average shares in issue *	179.9	180.4	255.4	330.4	330.4

Year End June

INCOME STATEMENT (AUDm)	2014A	2015A	2016E	2017E	2018E
Revenue	1.2	0.6	0.3	30.7	215.9
Operating Costs	(8.7)	(8.5)	(8.5)	(23.7)	(69.7)
Other	-	-	-	-	-
EBITDA	(7.6)	(7.9)	(8.3)	4.0	130.5
Depreciation	-	-	-	(3.1)	(15.6)
EBIT	(7.6)	(7.9)	(8.3)	0.9	114.8
Net Finance (costs)/ income	-	-	-	-	(4.8)
Non-Recurring / Other	(7.6)	(7.9)	(8.3)	0.9	110.0
Profit before Income Tax (Clean)	0.0	-	-	(1.8)	(31.8)
Income Tax and other Tax Expense	-	-	-	-	-
Profit after Tax (Clean)	(7.5)	(7.9)	(8.3)	(0.9)	78.2

BALANCE SHEET (AUDm)	2014A	2015A	2016E	2017E	2018E
Non-Current Assets	16.2	16.0	18.0	141.8	230.4
Cash and Cash Equivalents	20.2	13.4	63.1	0.9	66.2
Other Current Assets	0.5	0.5	0.5	3.0	6.0
Current Assets	20.8	13.9	63.6	3.9	72.2
Total Assets	37.0	29.9	81.6	145.7	302.6
Total Non-Current Liabilities	-	-	-	60.0	120.0
Total Current Liabilities	1.4	1.3	1.3	3.3	6.3
Total Equity	35.6	28.5	80.3	82.4	176.3
Total Equity and Liabilities	37.0	29.9	81.6	145.7	302.6

Net Assets	35.6	28.5	80.3	82.4	176.3
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CASH FLOW STATEMENT (AUDm)	2014A	2015A	2016E	2017E	2018E
Profit for the Year	(7.6)	(7.9)	(8.3)	4.0	130.5
Depreciation	-	-	-	3.1	15.6
Other	0.3	1.0	2.4	0.7	(16.2)
Cash From Operating Activities	(7.3)	(6.8)	(5.8)	4.7	114.3
Net Cash Used in Investing	(0.2)	(0.1)	(2.0)	(126.9)	(104.3)
Net Cash Used in Financing	(0.0)	-	57.6	60.0	55.2
Net change in cash and cash equivalent	(7.5)	(6.9)	49.8	(62.2)	65.2
Opening Cash and Cash Equivalent	27.7	20.2	13.4	63.1	0.9
Effect of FX	0.0	0.0	-	-	-
Closing Cash and Cash Equivalent	20.2	13.4	63.1	0.9	66.2

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