ConverDyn and Uranium Conversion

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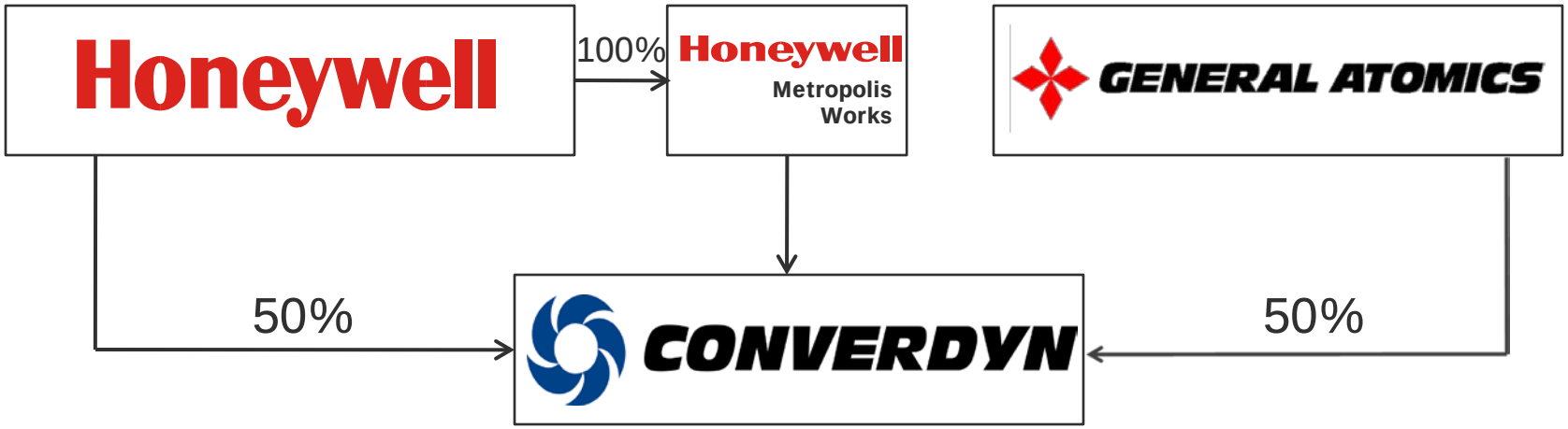
President & CEO

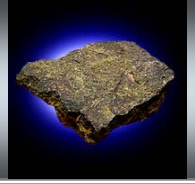
U.S. Nuclear Infrastructure Council

April 20, 2010



- A 99-year general partnership formed in November, 1992
  - Conversion market was in over-supply with no new reactors being built
  - Honeywell and General Atomics entered into partnership
- Exclusive right to market all UF_6 produced at Honeywell's Metropolis, IL conversion facility
- Additional services include uranium sampling, material storage services, and product delivery
- ConverDyn provides invoicing, contract administration, accounting, and stake holder contact

Assuring our customers of proven, reliable, long-term supply





Honeywell

- Headquartered in Morristown, NJ
- 2009 revenue of $31B
- 122,000 employees
- 4 strategic business groups

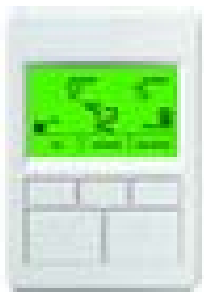
Automation & Control
- 2009 revenue of $13B

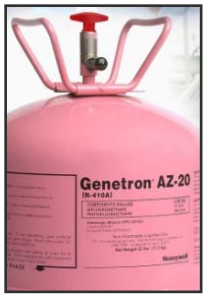
Aerospace
- 2009 revenue of $11B

Specialty Materials
- 2009 revenue of $4B

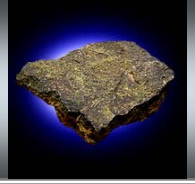
Transportation Products
- 2009 revenue of $3B







A Fortune 100 Company with diverse businesses, technologies, and products





GENERAL ATOMICS

- Founded in 1955 as a division of General Dynamics
- Privately held
- More than 5,000 employees
- San Diego, CA headquarters contains 1M square feet of engineering & test facilities, precision manufacturing, and technology labs
- Operating groups and affiliated businesses
  - Fusion Group
  - Advanced Technology Group
  - Reactor Group
  - Aeronautical Systems, Inc
  - Nuclear Fuels
  - Sorrento Electronics
  - American Supercomputing Network, Inc
  - Power Inverters


Predator B


Heathgate Uranium Plant (South Australia)


Mining Trucks

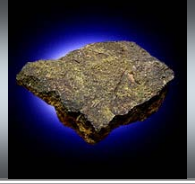

MH Reactor


National Fusion Facility


TRIGA


EMALS

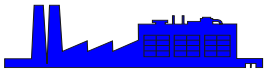
Historical roots in nuclear have led into other advanced technologies





The nuclear fuel cycle:

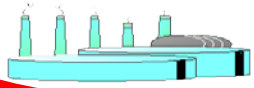
Uranium Mining and Milling



Producers sell U_3O_8 to utilities and traders.

55 Gal. drums = 850 lbs U_3O_8

Conversion to UF_6



Conversion

Natural UF_6

14 Ton cylinders = 8,200 kg UF_6

Enrichment

Low Enriched UF_6

Depleted UF_6

"Tails"

Fuel Fabrication

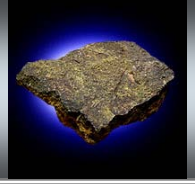
UO_2 Fuel Rods

Light Water Power Reactors

Spent Fuel

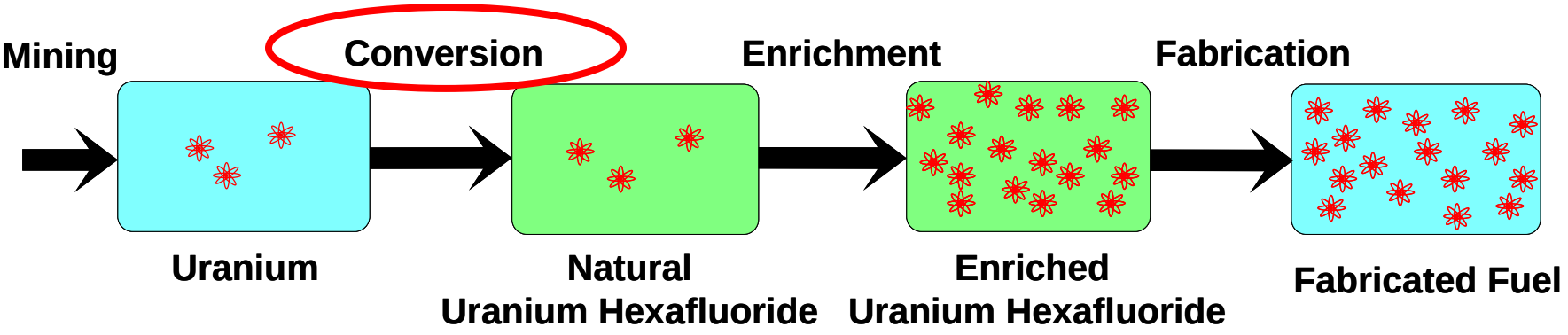
Spent Fuel Storage at Reactors

Waste Management/ Reprocessing





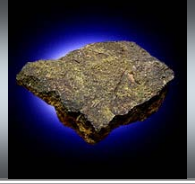
Major nuclear fuel cycle companies:



U_3O_8	UF_6	EUP	UO_2
U^{235} = 0.711%	U^{235} = 0.711%	U^{235} = 4.0%	U^{235} = 4.0%
Areva Resources	Areva	Areva	Areva NP
Canada, Niger, Kazakhstan	*France*	*France*	*France, USA*
Cameco	Cameco	Rosatom	Westinghouse
Canada, Kazakhstan, USA	*Canada*	*Russia*	*USA, Sweden*
BHP Billiton	ConverDyn*	Urenco	Tvel
Australia	*USA*	*UK, Holland, Germany, USA*	*Russia*
Rio Tinto	Rosatom	USEC*	
Australia, Namibia	*Russia*	*USA*	

* Wholly US-owned entities

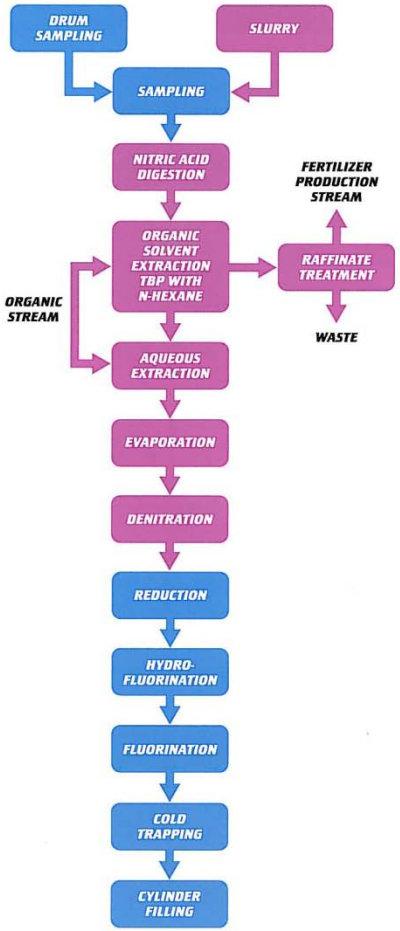
CONVERDYN



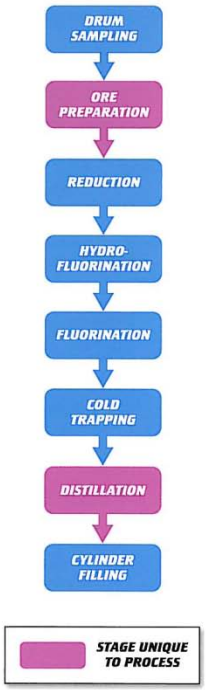


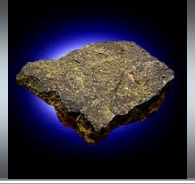
Honeywell

Classical Process



Fluoride Volatility Process



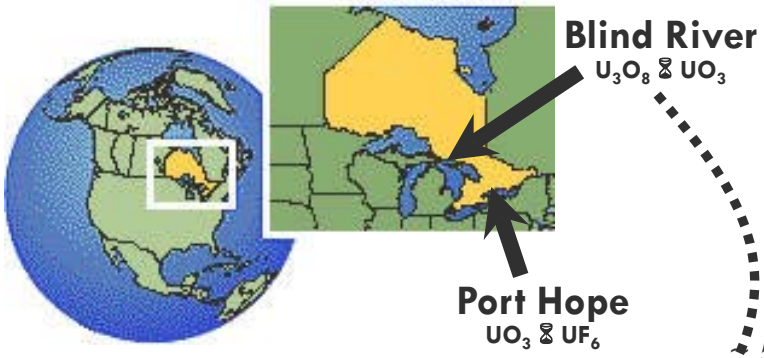




Conversion facilities:

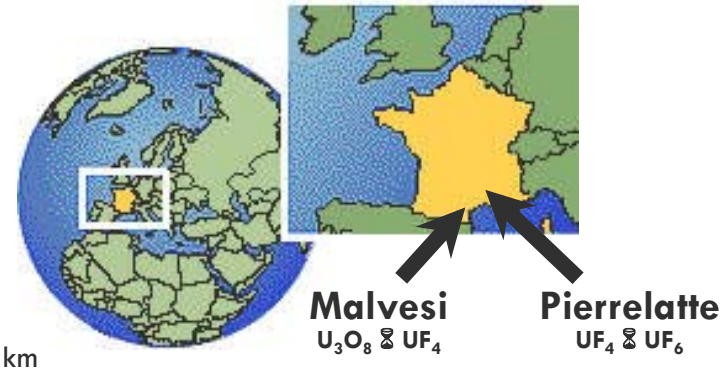
Cameco

Distance between facilities: 300 km



Areva

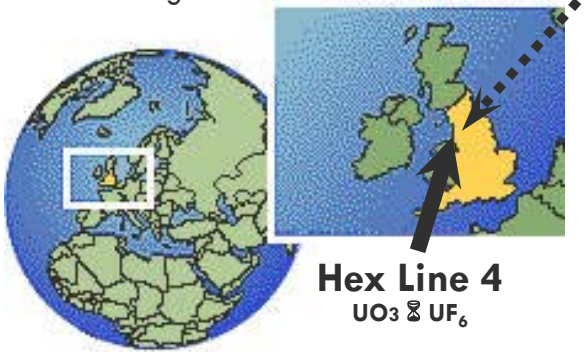
Distance between facilities: 200 km



5,600 km

Springfields

Operating UO_3 to UF_6 line under toll conversion agreement with Cameco



ConverDyn



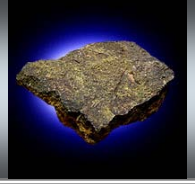


Honeywell
Metropolis Works

Metropolis plant facts:

- Site is on 1,100 acres, 60 acres are inside the fence line
- Operating UF_6 production under a 10-year license granted by United States Nuclear Regulatory Commission in June, 2007
- Responsible Care 14001 certification for commitment to health, safety, environment, and security
- ISO 9001 Certification verifies commitment to quality processes which ensure products continually meet or exceed customer requirements
- Nameplate capacity - 15,000 mtU as UF_6

Metropolis Works … the only operating conversion facility in the United States



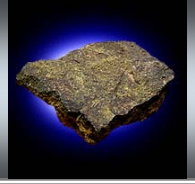


Metropolis plant investment:



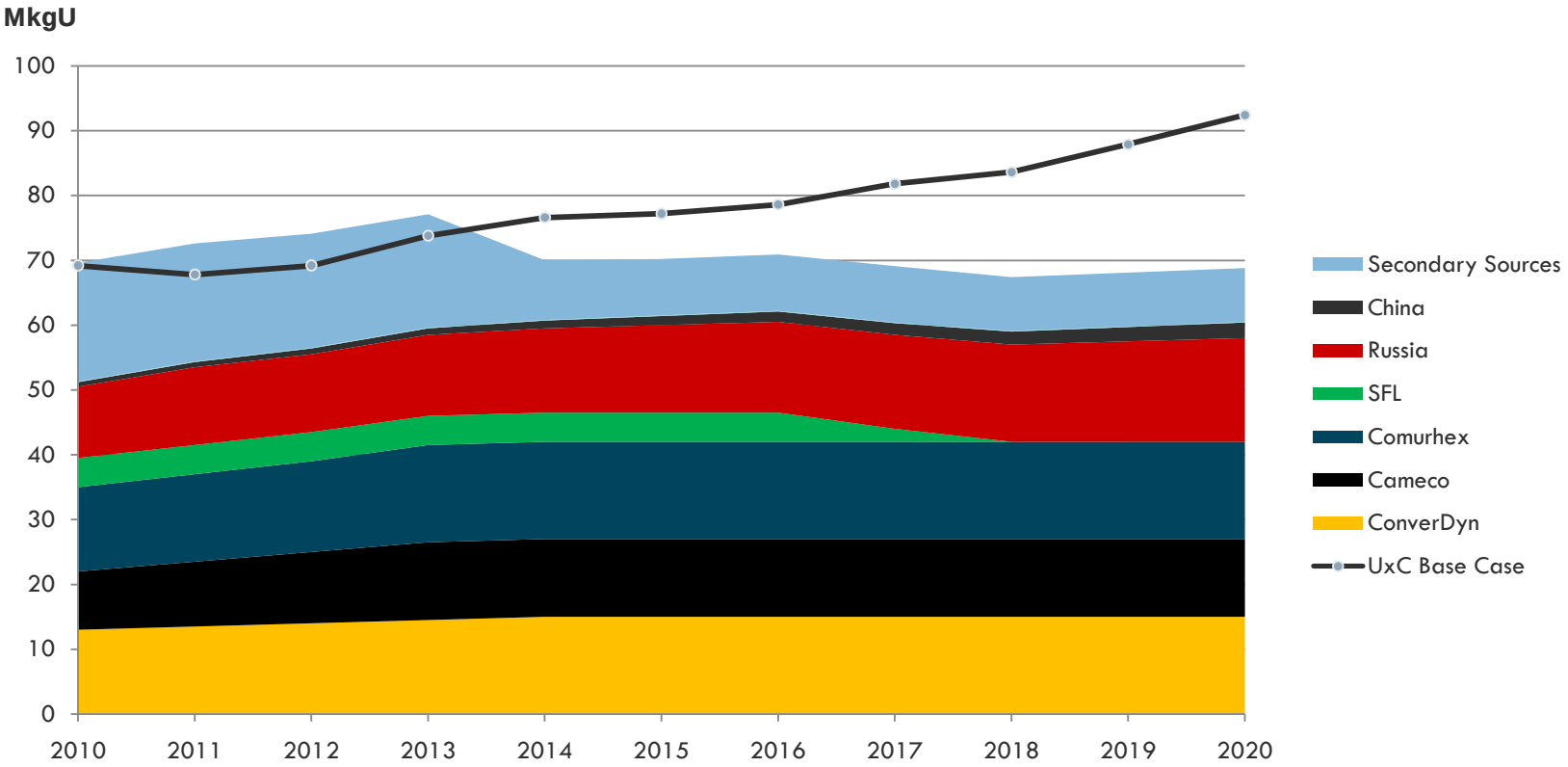



Capital improvements leading to more reliable production at improved rates



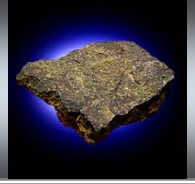


What do the supply and demand fundamentals suggest:



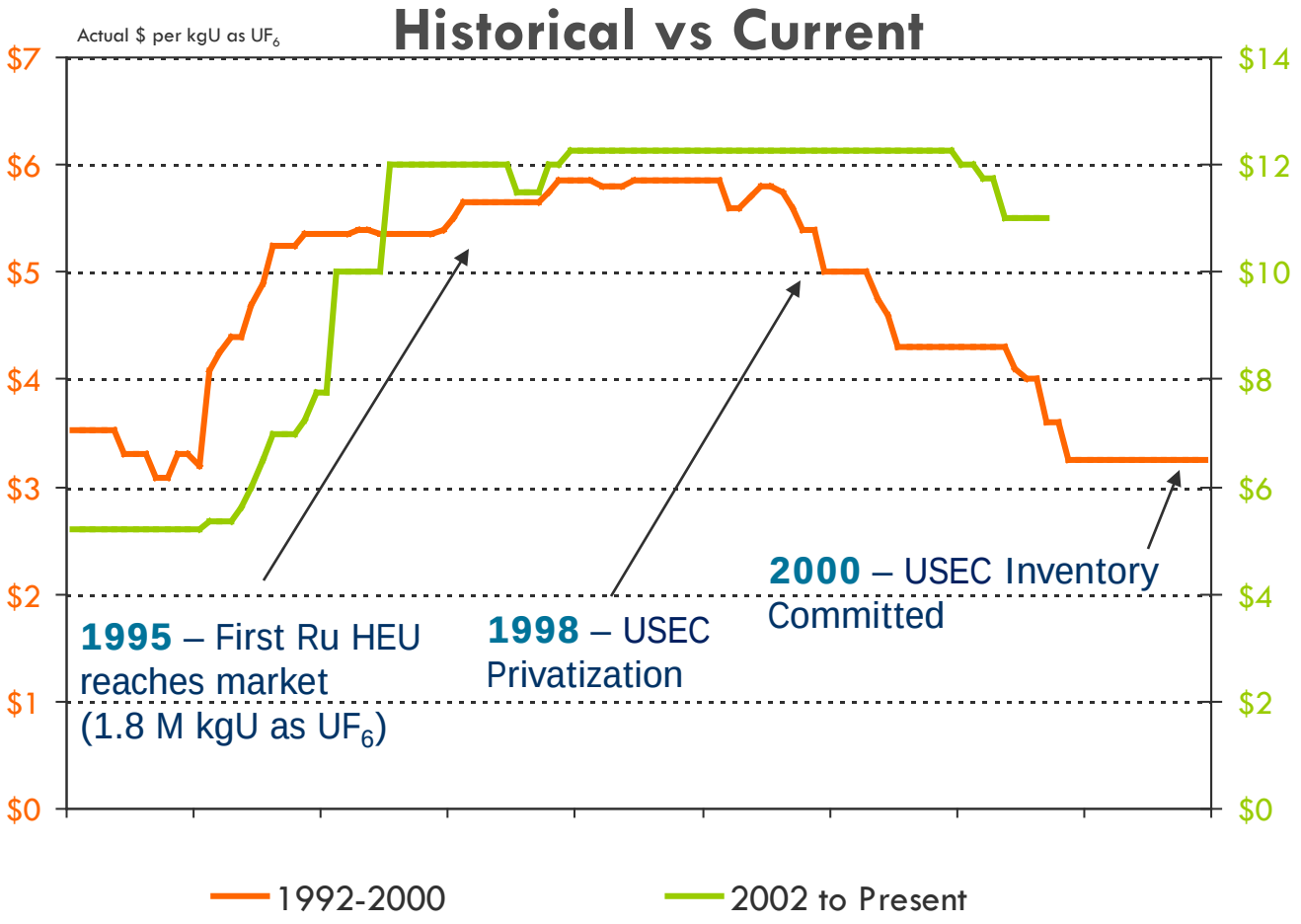
- Supply and Demand is just in balance
- Supply gap imminent

Source: UxC Conversion Outlook



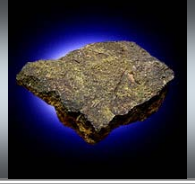


Conversion market movement – Phase 1:



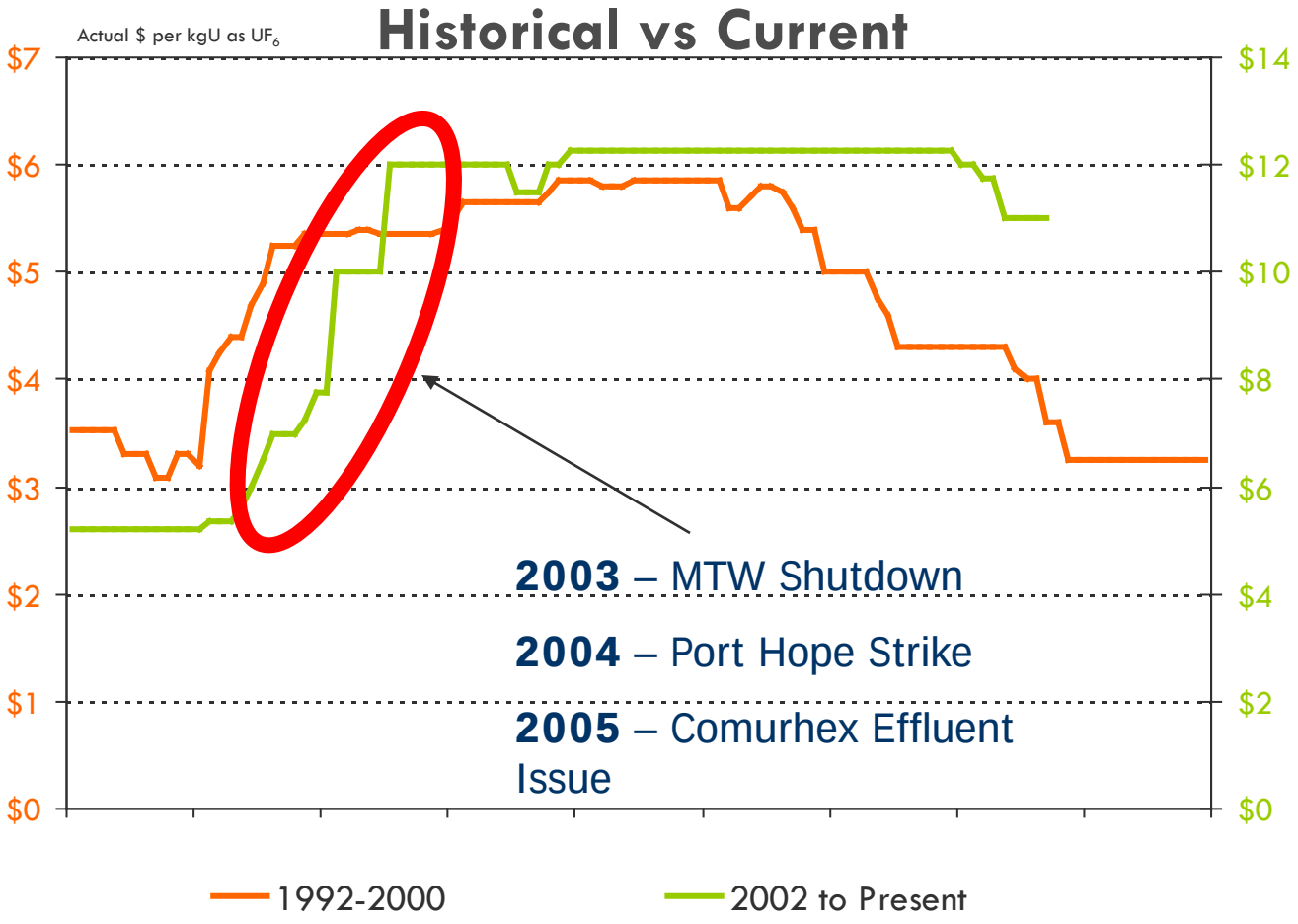
Large scale entry of secondary supplies

Source: TradeTech, NA Spot Price Jan 1992-Feb 1996, NA Long Term Price Feb 1996-present



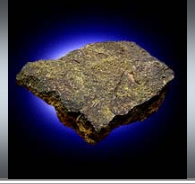


Conversion market movement – Phase 2:



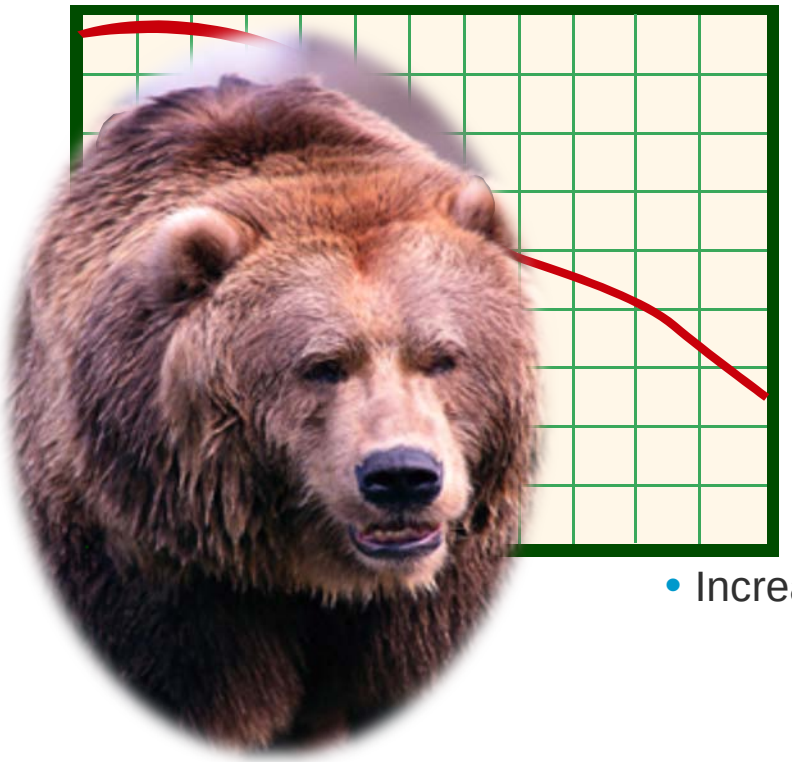
Multiple incidents at primary suppliers

Source: TradeTech, NA Spot Price Jan 1992-Feb 1996, NA Long Term Price Feb 1996-present





Russian supply:

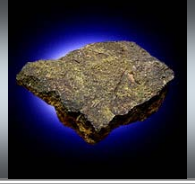


Effect of Russian HEU Supply on Conversion Industry: *PAST* –

- Reduced demand for primary conversion
- Reduced capital investment by primary converters
- BNFL announced plan to exit
- One way trade

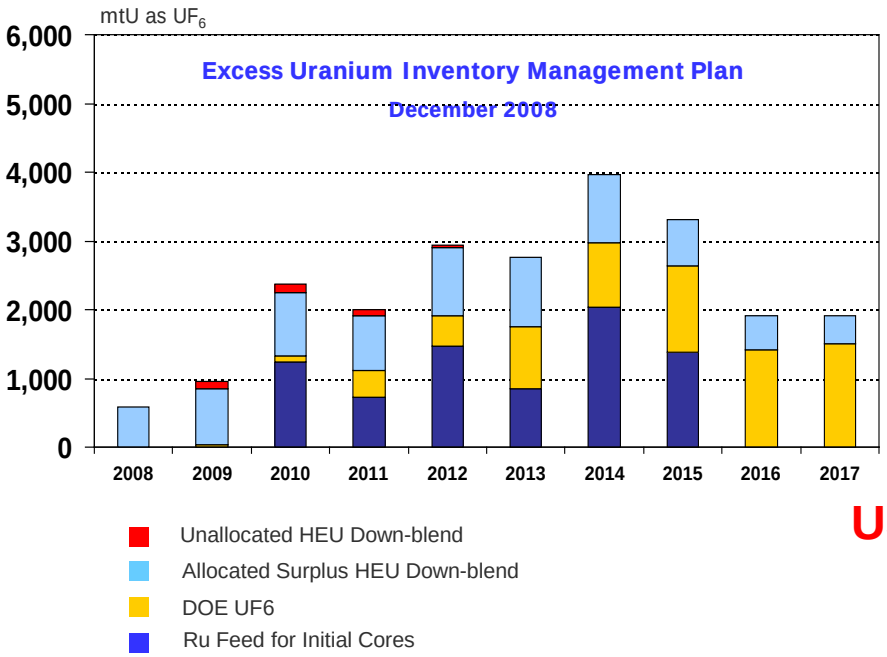
Effect of Russian HEU and Commercial Supply on Conversion Industry: *PRESENT* –

- Increased HEU uncertainty post 2013 – if, when, how much?
  - Domenici Amendment impact
- Russian penetration of current and future markets
  - Ex: Japan, China, India, US
- Uncertainty increases risk of capital investment by primary converters
- Still one way trade





US government secondary supply:



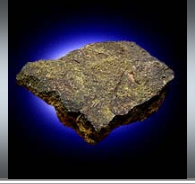
US Government Secondary Supply Effect on Conversion Industry: *PAST* –

- Further reduction in primary conversion supply
- Primary converters slash capital spending
- Sub-optimized production
- Transfer of 50 mt HEU and 7,000 mt nU from DOE

US Government Secondary Supply Effect on Conversion Industry: *PRESENT* –

- "Uranium Dumping" affects market
- Inventory sales will have adverse material impact on US fuel cycle industry
- Negative incentive for needed capital investment by converters
- Jeopardizes growth in conversion supply
- Current DOE nU plans???

Source: DOE





Supply disruptions:

Supply Disruptions Effect on Conversion Industry: *PAST* –

- Demonstrated that primary production is fragile
- Depletion of inventories
- Supplier incidents raised market awareness of need for capital improvements

Supply Disruptions Effect on Conversion Industry: *PRESENT* –

- Inventories held as UF_6
- Ample supply
- Some market recognition of need for capital improvements
- Insufficient incentives offered by market for supply growth

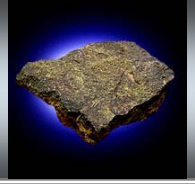
Capacity addition or new build:

Conversion Expansion: *Maintain Existing Plants* –

- Increased capital investment for maintenance reliability and performance improvements
- Added staff and management positions
- Some support through direct customer participation

Conversion Expansion: *New Build* –

- Stronger market signals needed
- Shared risk and margin protection
- Government intentions must be clear and firm





Converter's challenge:

- Supply / demand analysis supports more conversion needed to meet uranium and SWU requirements for planned reactors
- Capacity expansion is not feasible at current market prices

Uncertainty factors:

- Timing and financing of new reactors
- Impact of China and India growth and sourcing strategy
- Secondary supply sources
  - Government actions
- Cost and access to raw materials
- Political policy and environmental regulation
- Russian strategy and continuance of market restrictions

Better understanding of supply/demand factors is needed

Metropolis Works Accreditations

ISO 9001 Certification

- Certificate issued September 2009
- Process has improved documentation and issue analysis
- Internal audits for all products quarterly
- Recertification every three years

Responsible Care (RC) 14001 Certification

- Certificate issued June 2009
- Ensures plant processes are designed to minimize injuries, pollution and risk
- Certificate recognized by the American Chemistry Council