



Progress of LEU TechnoLite® Generators and Xenon 133 Supply

Ira Goldman

Senior Director, Global Strategic Supply and Government Relations

Kathy McFadden

Senior Director, Commercial Sales and Operations

DOE Mo-99 Topical Meeting

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Content

- **LEU TechneLite[®] Manufacture**
- **LEU Supply Chain**
- **TechneLite[®] Commercial Progress**
- **Xe-133**

Lantheus Medical Imaging (LMI)

Company Overview

- A global leader in innovative diagnostic medical imaging agents
- Pharmaceutical imaging agents used to diagnose coronary artery disease, congestive heart failure, stroke, lung disease and other diseases

Headquarters

- N. Billerica, Massachusetts

Offices

- U.S., Canada and Puerto Rico

Commercial Products

- 9

Development Pipeline

- Three next-generation product candidates that use Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI)



Lantheus Medical Imaging LEU Leadership

- **FIRST** – to receive FDA approval for LEU Mo-99 in North America:
 - ANSTO: May 2011
 - NTP: September 2010
- **FIRST** – to commercially sell a generator made with only LEU Mo-99 (December 2010)
- **FIRST** – to have LEU Mo-99 as a routine part of blended Tc-99m production (May 2011)
- **FIRST** – to commercially manufacture and regularly distribute CMS non-HEU (LEU) incremental add-on HOPPS payment compliant generators (beginning Jan. 7, 2013)



Lantheus Medical Imaging
adds the innovative
LEU TechneLite[®]
(Technetium Tc 99m Generator)
to our Nuclear
Medicine Portfolio

Available NOW!



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LEU Supply

- **Dedicated, weekly LEU TechneLite® generator runs 2013-16 (89.6%)**

- **2013 – 46 weeks**
- **2014 – 42 weeks**
- **2015 – 50 weeks**
- **2016 – 25 weeks (through H1)**

- **LEU Mo-99 as proportion of total LMI purchased Mo-99:**

2013: 29%

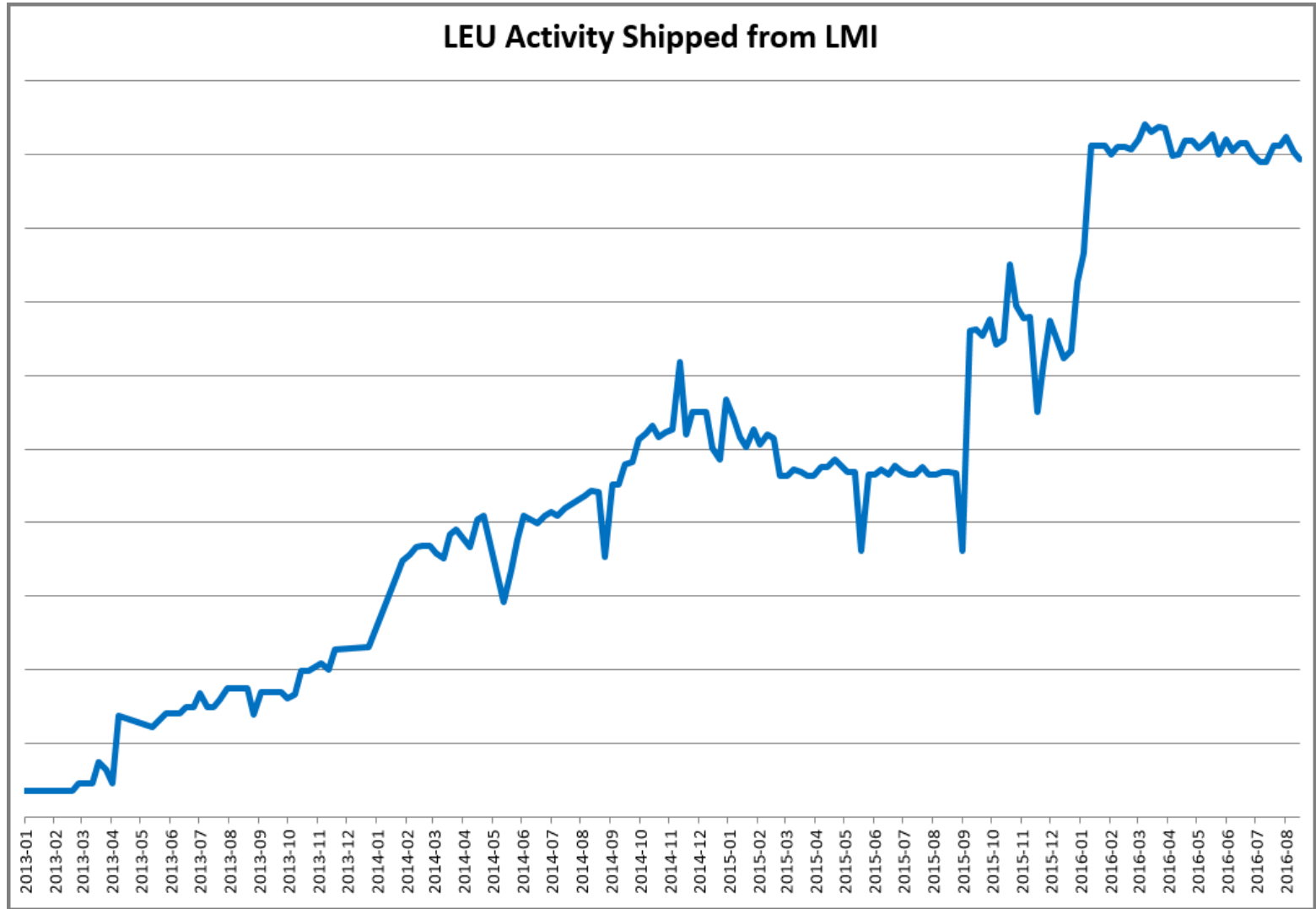
2014: 32%

2015: 41%

2016 (est.): 50%

- **ANSTO capacity increase to 2250 Ci/week in existing plant approved August 2016**
- **ANSTO ANM project (3500 Ci/week) commissioning 1Q2017; validation runs planned 1H2017 followed by FDA/HC filings**
- **IRE LEU conversion: validation runs late 2016; FDA/HC filings 1H2017**
- **Lantheus currently anticipates full transition to LEU in 2HQ2017**

LEU TechneLite[®] generators shipped activity



LEU TechneLite® Commercial Progress

- **Misperceptions and misunderstandings continue in the market about LEU availability and reliability, CMS add-on payment, etc.**
 - concern about CMS audit and fines
- **Lantheus interacting with customers to promote uptake of LEU generators**
 - Adoption has increased at Rx level beginning of year
 - leveled off middle of year
 - CMS data demonstrates steadily rising claims, though still small
 - Some Private Payers are reimbursing use of LEU
 - need reimbursement policy for all covered individuals
- **Lantheus continues to provide information to increase LEU knowledge at hospitals (i.e. August 2014 webinar, 2015 webinar)**
- **Continue to assess LEU supply chain ability to service additional or different days of LEU TechneLite® manufacture**

LEU TechneLite®

- **Lantheus LEU Webinar:**
 - Provides a Nuclear Pharmacy’s 2-year experience
 - Implementation into pharmacy operation
 - Operation changes
 - System changes
 - Education of End Users in market
 - Delivery of LEU doses to End Users
 - Provides an End Users’ experience
 - Implementation into operation
 - Operation changes
 - System changes
 - Reimbursement process
 - NOT AS DIFFICULT AS OFTEN PORTRAYED
- **UPPI “LEU Walk” continues**
 - >33 pharmacies purchasing
 - many are 100% LEU

Xenon Xe 133 Gas (Xenon 133)

- **Xenon 133 used in U.S. for pulmonary imaging**
- **Lantheus announced new strategic agreement with IRE for future supply of Xenon 133 gas on January 21, 2015**
 - IRE provides unprocessed radiochemical Xenon 133 to Lantheus for processing and finishing
- **FDA approval received June 10, 2016**
- **First commercial shipment June 30, 2016**
- **Currently increasing shipments from IRE and decreasing from Nordion; all IRE beginning in November**
- **Pursuing diversification options**
- **IRE LEU-based Xenon-133 project in early stage**

Conclusions

- **Lantheus has taken a leadership role in use of LEU Mo-99 in its TechneLite[®] generator supply chain**
- **LEU TechneLite[®] generators poised for significant increase in 2017 with projected all-LEU Mo-99 supply**
- **LEU key to enhanced global nuclear security and creates foundation for more secure, reliable future supply of Mo-99**
- **Lantheus and IRE have secured Xenon-133 supply**

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Thank you

Questions?