

SARNIA - LAMBTON

REFINE IT HERE!

THE SABER PROJECT



HYPOTHESIS

SABER REFINERY IS VIABLE

For this to be true, the following would have to be true:

1. **CAPTURE** Value Added
2. **DELIVERABLE** Bitumen
3. **ADVANTAGES** for All Stakeholders
4. **AVAILABLE** Markets, Globally Competitive
5. **OBTAINABLE** Approval to Build
6. **ATTRACTIVE** RETURN
7. **FINANCEABLE** -ALONE OR PARTNERSHIP

CAPTURE VALUE ADDED

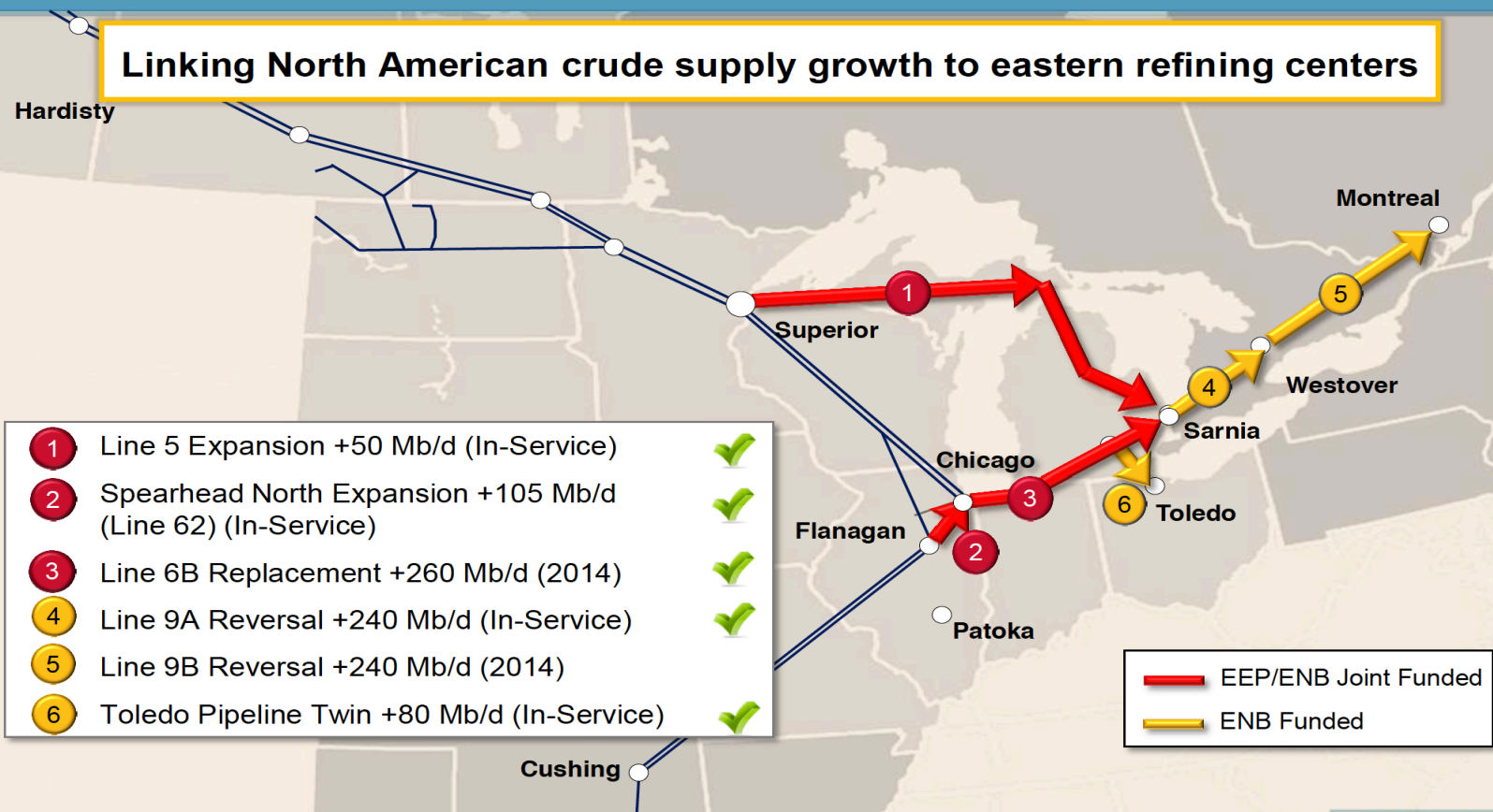
1. **IRR 15% TO 20%+ - ASSUMPTIONS DRIVEN**
2. **CANADA** – World Class Refinery Captures Value Added, Provides High Quality Jobs, National Impact
3. **ALBERTA** – Market For 100,000 BPD of Bitumen
4. **ONTARIO** – \$10 B CAPEX, \$250 M ANNUAL SPEND
=Quality JOBS, Spinoffs, Materials, and Services
5. **SARNIA/LAMBTON** – Stimulus from Hosting Project

DELIVERABLE BITUMEN BY EXISTING PIPELINE SYSTEM

Market Access – Eastern Access



Linking North American crude supply growth to eastern refining centers



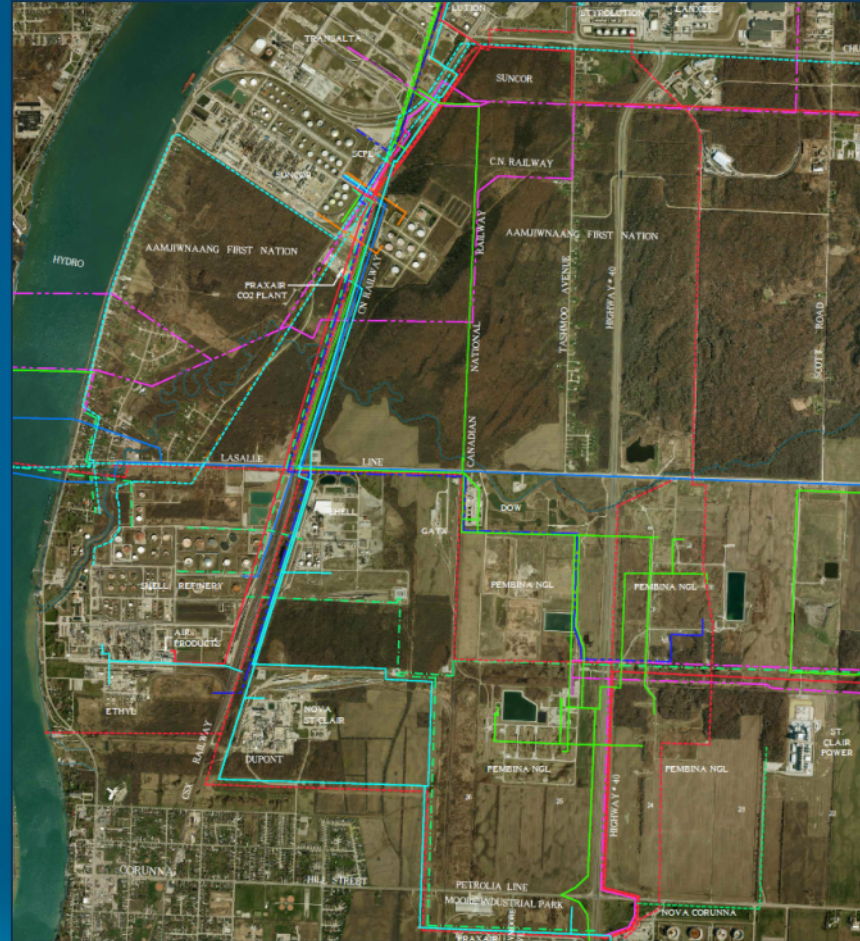
DAWN NATURAL GAS STORAGE HUB



PIPELINES AND STORAGE

**OVER 100
PIPELINES**

- Crude Oil
- NGL/LPG
- Naphtha
- Raffinate
- Distillate
- Gasoline
- Hydrogen
- Olefins
- Aromatics



STORAGE

- Oil Tankage
- Salt Caverns
- Bullets
- Spheres

NGL & PETROCHEMICALS

- **Many Salt Caverns Connected**



SARNIA-LAMBTON **ADVANTAGES**

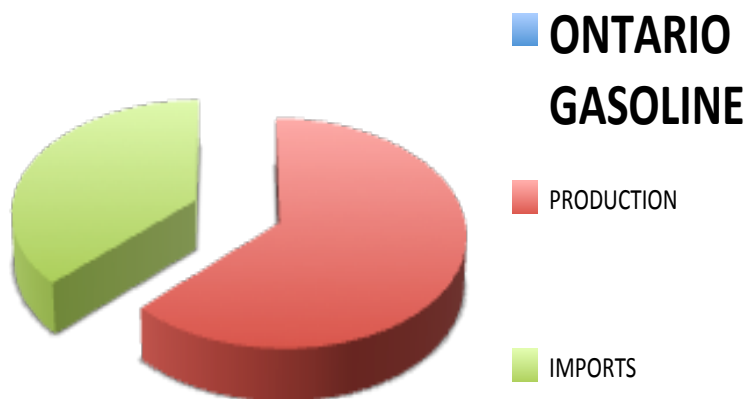
- Large Available Skilled Workforce –SURPLUS-
- Businesses Now Making Refinery Type Process Modules in Sarnia, for Alberta, Atlantic Canada, and US
- Construction Trades Continuity of Services Agreed and Signed --PLA: No Strikes, No Lockouts
- Safety Record EXCELLENT
- Serviced Land Zoned Heavy Industrial Available Now
- Diverse Manufacturing and Emerging Technology Sectors



SEBER Refinery

Don Wood Consulting

ONTARIO FUELS IMPORTS



37 % IMPORTED



27% IMPORTED

AVIATION FUEL 21% IMPORTED

2012 STATS CAN

AVAILABLE PRODUCT MARKETS

- Midwest US 2012 Imported 13% of Products² from USGC
- PADD II Refineries 96% rate
- ULSD Preferred
- Sarnia Lambton products will displace USGC products into the export market
- International market access by St. Lawrence Seaway



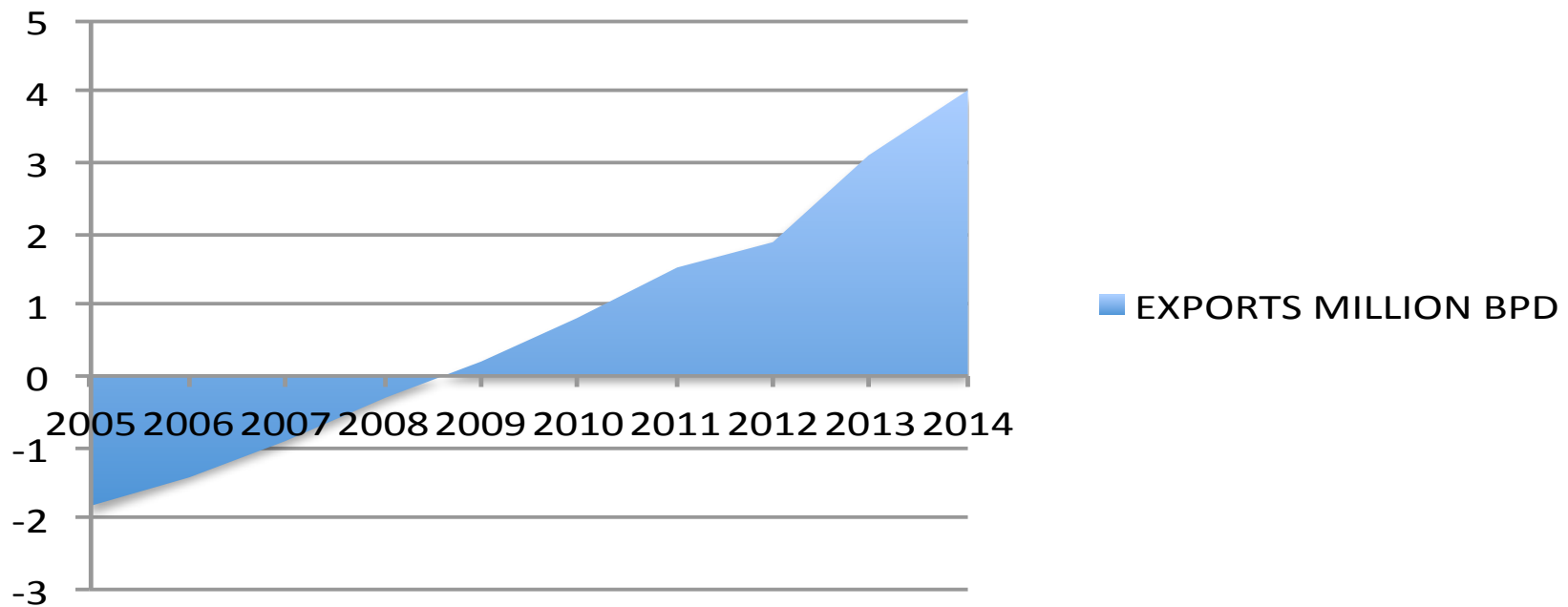
13%

2. Marathon Petroleum Corp Business Update, December 2012

3. Valero Howard Weil Energy Conference, March 20, 2013

USA NET EXPORTER OF GASOLINE, DIESEL, AV FUEL

EXPORTS MILLION BPD



APPROVAL OBTAINABLE

- **GHG & CLIMATE CHANGE**

- Deploy Latest Emissions Control Technology
- Energy Efficient – Minimize GHG Footprint
- Doesn't add to fossil fuel demand
- 100 years of embedded infrastructure will support the economy and well being well past 2050
- May decrease global GHG emissions by displacing less efficient capacity –Texas & LA displaced 4 million BPD
- Very small in context of Ontario total-less than 0.1%

- **RESPONSIBLE DESIGN**

- Water Use – Efficient, Zero Liquid Discharge Possible

OBTAINING APPROVAL

WELCOMING COMMUNITY!!

- **SARNIA LAMBTON KNOWS OIL PROCESSING FROM OVER 150 YEARS OF EXPERIENCE!!**
- **REQUIRED-Early, Transparent, Two-Way, Responsive Dialogue To Address Local Issues**
- **Involve First Nations, Their People And Businesses – They Must Benefit Too!**



FINANCEABLE

BY INDUSTRY CHAMPION

**@WTI = \$100/BBL, NETBACK TO HARDISTY = \$72.65 BBL
&**

**DELIVERED SARNIA
\$78.15/BBL**

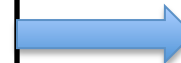
**VALUE ADDED
\$45.85/BBL**

**NETBACK
\$124/BBL**

**150,000 BPD DILBIT
(105,000 BPD
BITUMEN)**



**SARNIA LAMBTON
UPGRADER REFINERY
\$~8.5~10.5 BILLION
NELSON FACTOR=13**



**134,000 BPD
PRODUCTS**

**VALUE ADDED CAPTURE = \$2.5 BILLION/YR,
25 YEARS = \$62 BILLION, 15% to over 20% IRR
For Owning & Operating Costs Plus Return to Investors**








HYPOTHESIS

A SARNIA LAMBTON REFINERY

IS VIABLE

For this to be true, the following are true:

1. **CAPTURE** VALUE ADDED FOR ALL CANADIANS 
2. **DELIVERABLE** BITUMEN 
3. **ADVANTAGES** FOR ALL STAKEHOLDERS 
4. **AVAILABLE** MARKETS, GLOBALLY COMPETITIVE 
5. **OBTAINABLE** APPROVAL TO BUILD 
6. **ATTRACTIVE** RETURN – IRR OVER 15% 
7. **FINANCEABLE** -MAYBE JV TO SPREAD RISK 

A SARNIA LAMBTON REFINERY IS **FINANCEABLE!**

- **PROJECT PROPONENT
NEEDED!!**
- **Proponent First Stage Gate
Feasibility Work is the Next
Step**

THE SARNIA LAMBTON ADVANTAGE

BEST OR EQUAL

BITUMEN BY PIPE LINE NOW	NATURAL GAS BY PIPELINE -IN PLACE, MARCELLUS & ALBERTA
MARKET ACCESS FOR PRODUCTS, ULSD, ONTARIO, AND PADD II	MARKET ACCESS BY DISTRIBUTION SYSTEM ALL MODES + SEAWAY
COMMUNITY SUPPORT	ENVIRONMENTAL APPROVAL
SKILLED REFINERY CONSTRUCTION LABOUR	LABOUR RELATIONS EXCELLENT
LOCAL SERVICE INDUSTRY	UNUSED LOCAL INFRASTRUCTURE
SALT CAVERN STORAGE	ABUNDANT FRESH WATER