



PTT Business Plan & CAPEX

Analyst & Fund Manager: PTT Site Visit

**By Mrs. Arawadee Photisaro
Executive Vice President, Strategy & Portfolio Management**

Agenda



- **2015 Strategic Direction**



- **2016 - 2020
Key Business Plan & CAPEX**

PTT aims to become “Thai Premier Multinational Energy Company”

Vision

Thai Premier Multinational Energy Company



Aspiration

- Big:** การเป็นบริษัทขนาดใหญ่ของโลก
ติดอันดับ Fortune 100 ภายในปี 2563
- Long:** การเป็นบริษัทที่มีการเจริญเติบโตอย่างยั่งยืน
ติดอันดับ DJSI ภายในปี 2556
- Strong:** มีผลการดำเนินงานติดอันดับชั้นนำ
(Top Quartile Performance) ภายในปี 2563

Mission

ดำเนินธุรกิจด้านพลังงาน
และปิโตรเคมีอย่างครบวงจร
ในฐานะเป็นบริษัทพลังงาน
แห่งชาติ โดยมีพันธกิจใน
การดูแลผู้มีส่วนได้เสียอย่าง
สมดุล



- ต่อประเทศ:** สร้างความมั่นคงทางพลังงานในระยะยาว เสริมสร้างการเติบโตทางเศรษฐกิจ
- ต่อสังคมชุมชน:** เป็นองค์กรที่ดีต่อสังคม บริหารจัดการผลกระทบต่อสิ่งแวดล้อม มีส่วนร่วมในการพัฒนาคุณภาพชีวิตที่ดีแก่ชุมชน
- ต่อผู้ถือหุ้น:** ดำเนินธุรกิจเชิงพาณิชย์ สามารถสร้างผลตอบแทนที่ดี
- ต่อลูกค้า:** สร้างความพึงพอใจและความผูกพันแก่ลูกค้า โดยการนำเสนอผลิตภัณฑ์ที่มีคุณภาพ ราคาเป็นธรรม
- ต่อคู่ค้า:** ดำเนินธุรกิจร่วมกับบนพื้นฐานของความเป็นธรรม พัฒนาศักยภาพในการดำเนินธุรกิจร่วมกันในระยะยาว
- ต่อพนักงาน:** สนับสนุนการพัฒนาความสามารถพนักงาน ให้ความมุ่งมั่นในคุณภาพชีวิต

Corporate Value

S Synergy **P** Performance **I** Innovation **R** Responsibility **I** Integrity and **T** Trust &

Strategic direction has continuously developed for PTT sustainable growth

- Stakeholder Management
- Rebranding
- RIT Champions



“Pride & Treasure of Thailand”

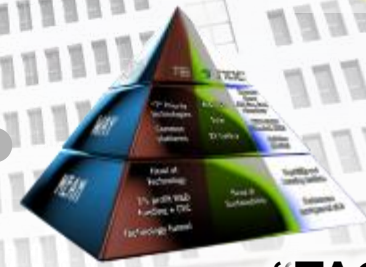


“Inclusiveness + Sustainability”

- Technology Roadmap
- Sustainability Framework
- Learning Triad

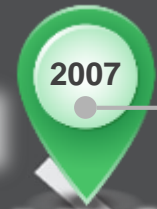


“Knowledge – based Organization”



“TAGNOC”

- International Growth / Leading Global Chemicals
- PTT Group Synergy
- Fortune 100 & DJSI Ranking



“High Performance Organization”



“Strengthen PTT Group”

Aspiration:

BIG : FT 100

LONG : Listed in DJSI

STRONG : Top quartile ROIC

PTT Strategic Direction

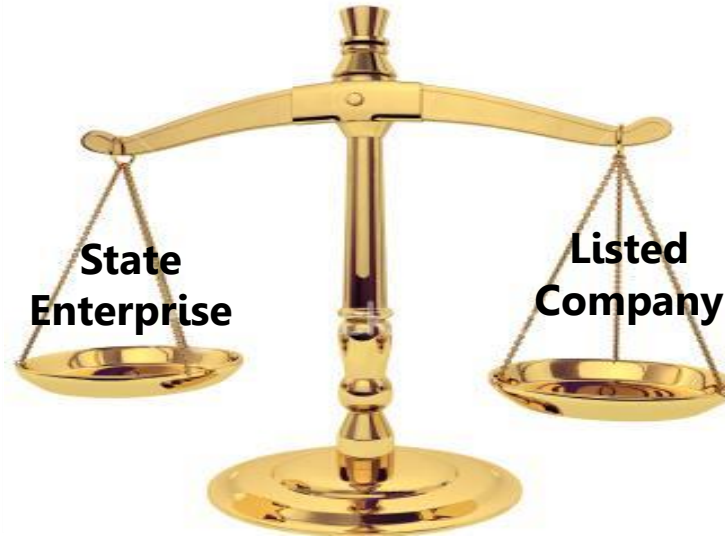
(ยุทธศาสตร์)



Pride

Strengthen & Focus

- ✓ Country Energy Security (NOC)
- ✓ Public Trust
- ✓ Business Transparency
- ✓ Corporate Governance
- ✓ Public Wealth Community & Environment



Treasure

Maintain status of Listed company

- ✓ Top class energy company
- ✓ Sustainable Growth
- ✓ High Performance Org.
- ✓ Knowledge-based company

"INCLUSIVENESS"

ยุทธศาสตร์ด้านการมีส่วนร่วม



"SUSTAINABILITY"

ยุทธศาสตร์ด้านความยั่งยืน

Agenda



- **2015 Strategic Direction**



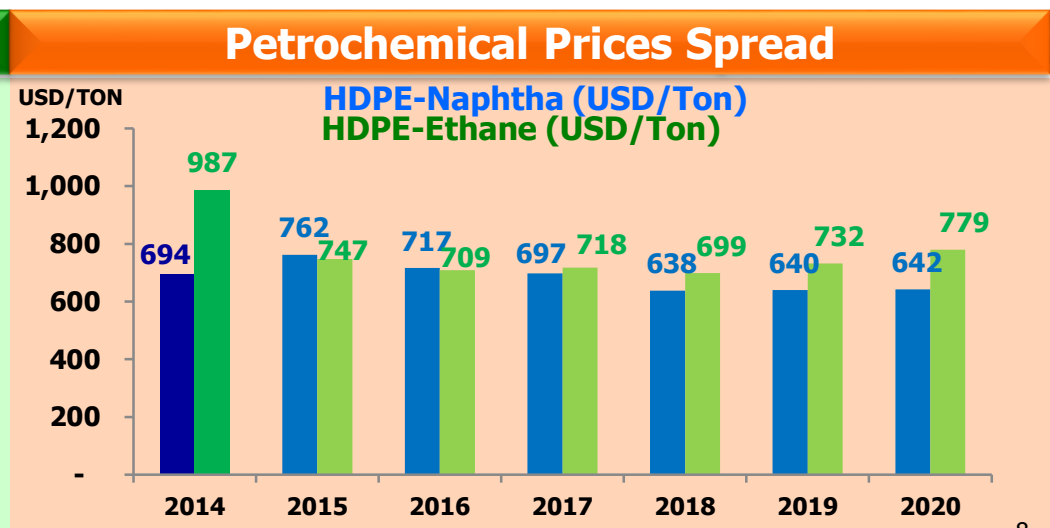
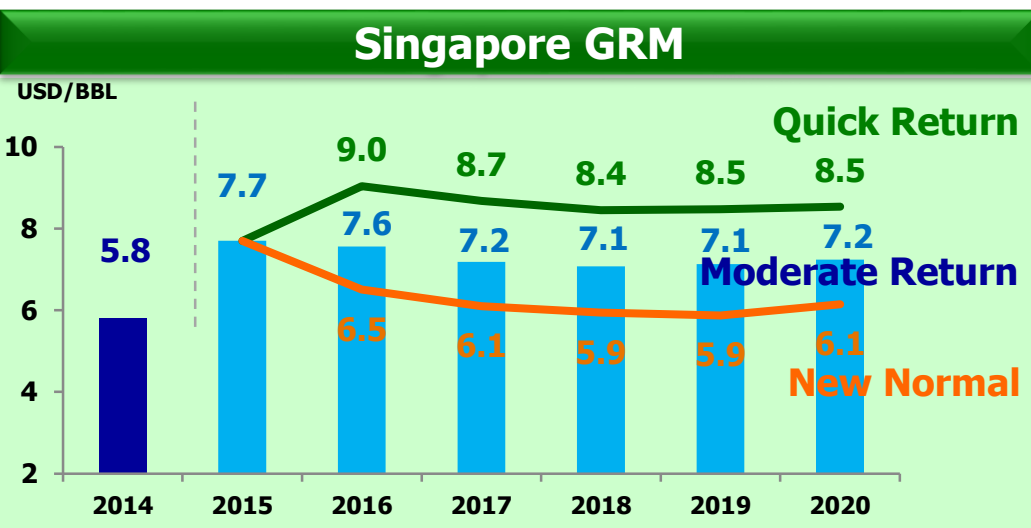
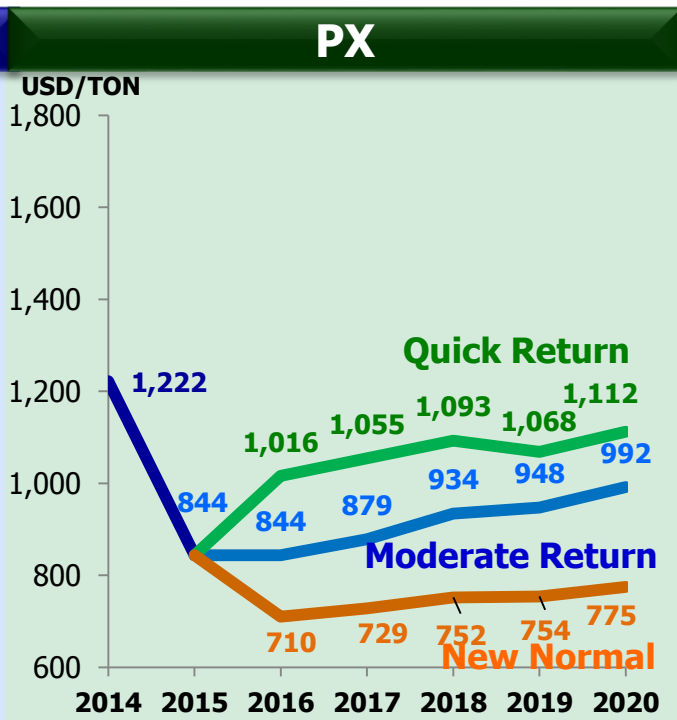
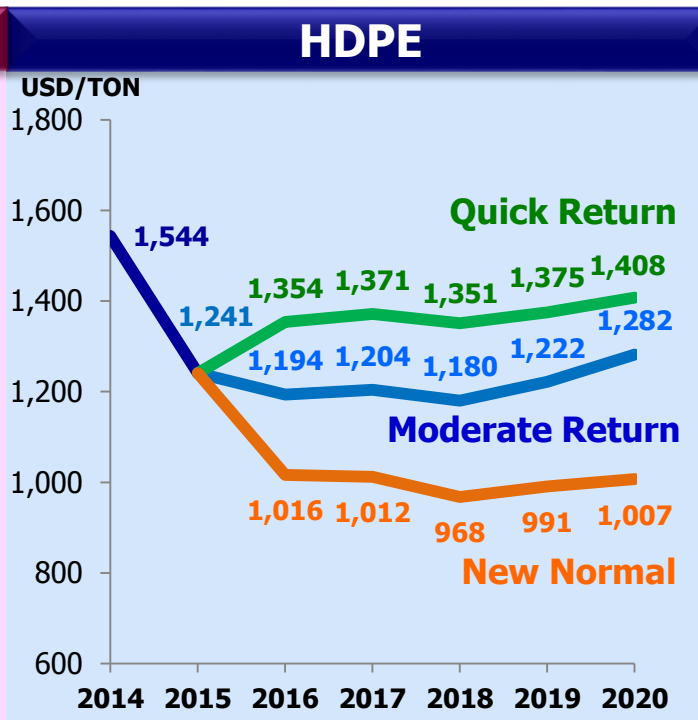
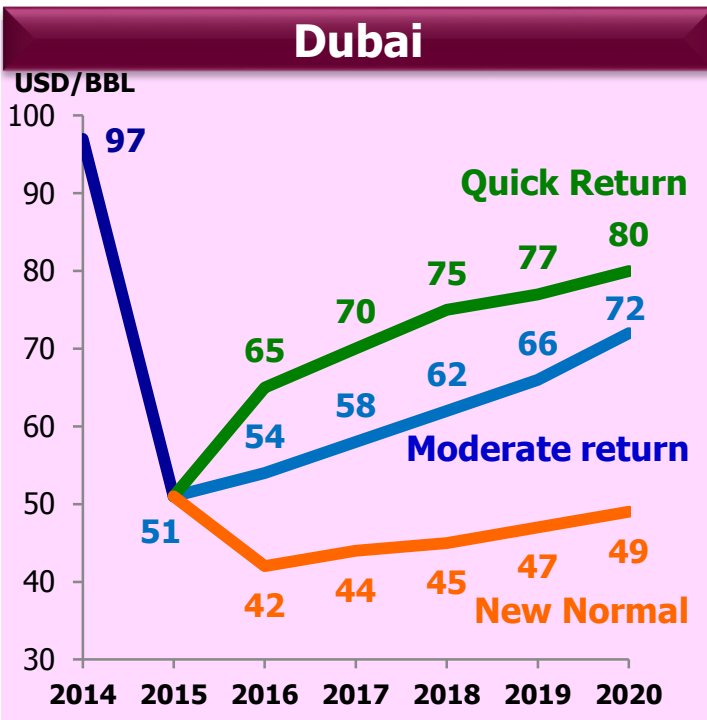
- **2016 - 2020
Key Business Plan & CAPEX**

Three oil price scenarios to 2020

Scenario	How long (to beginning of recovery?)	Description	Key drivers
 <p>"Quick Return"</p>	2016	<p>Rebound back to \$70 level in late 2016</p>	<ul style="list-style-type: none"> • Strong demand growth • ME & Africa geopolitical tension • Shale oil production fades out
 <p>"Moderate Return"</p>	2018	<p>Rebound in 2 years at \$60 level</p>	<ul style="list-style-type: none"> • Economics growth continues esp. China, India, ME • Non-OPEC gradually decreases production esp. Shale oil • OPEC maintains quota
 <p>"New Normal"</p>	2020	<p>Oil Price stays at \$40 level</p>	<ul style="list-style-type: none"> • Bearish global economy • High spared capacity from Iraq, Iran and Libya • US lift ban on crude oil export

PTT Group Business Plan focus on "Moderate Return" & "New Normal" scenarios

Prices Scenario Reflect Economic and Industry Dynamics



PTT Group 2016 -2020 Strategic Framework



Vision: "Thai Premier Multinational Energy Company"

Aspiration:

BIG: FT 100

LONG: Listed in DJSI

STRONG: Top quartile ROIC

Strategic Direction:

Pride & Treasure of Thailand

Pride

Inclusiveness



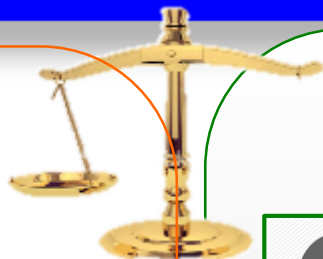
Stakeholder Management

SPIRIT

Strengthen from Inside by "SPIRIT"



Good Governance



Treasure

Sustainability



Upstream

- Enhancing energy supply security and sustainable value creation



Gas/Infrastructure

- Long term value creation/ Sustainable Growth Platform for Region through Services and Solution Provider Excellence



Downstream

- Top quartile performance in Asia Pacific



Portfolio restructuring

- Portfolio optimization to secure future growth platforms

Enablers:

People

Finance

Technology

ICT

Strategic Priorities for Oil & Gas in 2016: Oil & Gas industry adapt its planning to respond to complexity in 2015



1. **Use oil price scenario** as a way to examine the possibility of oil prices
2. **Put money & resources on the best asset** rather than try to turn around underperforming asset
3. **Target productivity improvement to 20-25% more than in 2015**
4. **New capital : Build vs Buy** for portfolio
5. **Manage cash flow effectively:** (not over extend it)

Upstream Business Strategic Plan: Survive under “New Normal”, Seek opportunity under “Moderate Return”

PTTEP



- **Cost reduction**
- **Prioritize production: Focusing on profitable Assets**
- **Postpone uneconomic projects**
- **Reshape corporate portfolio**

PTTER



- **Productivity improvement & production optimization**
- **Pending operation in high cost assets**
- **Revisit coal strategic direction**

PTTEP: Survive and Thrive, Quality over Volume



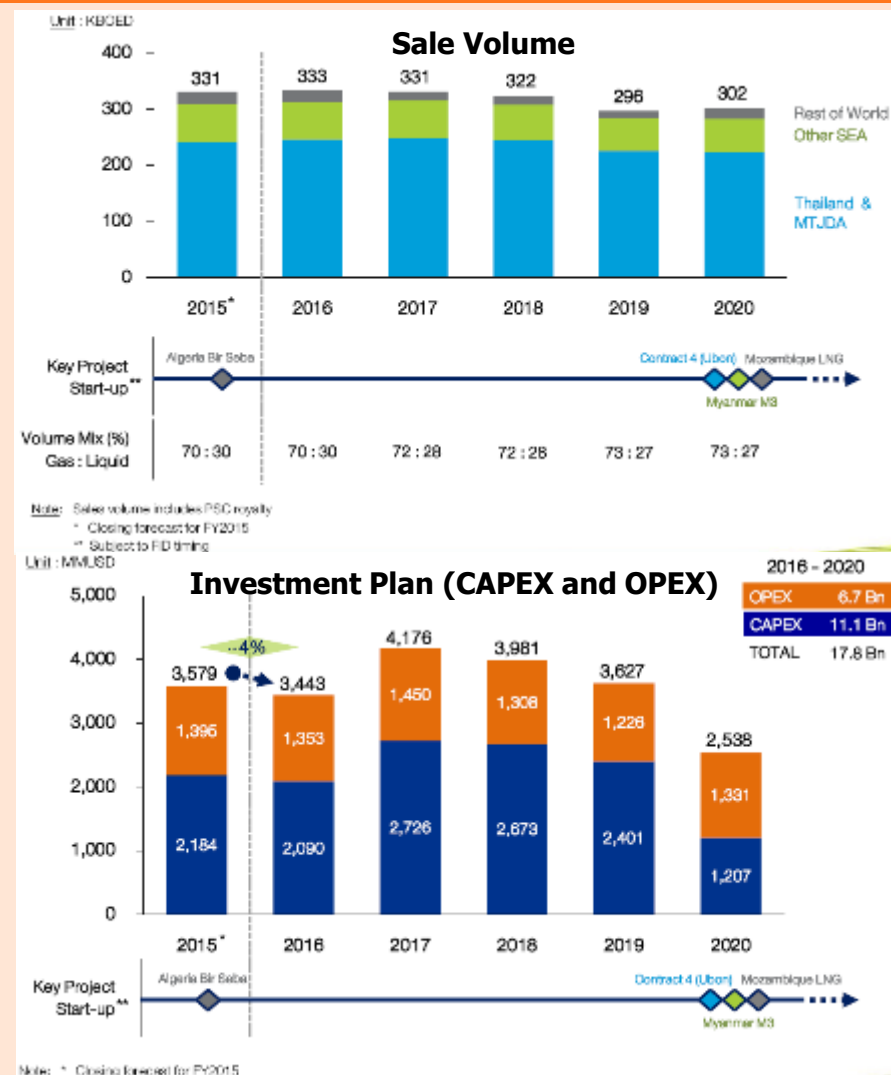
Target : 600 kbd with R/P \geq 7 yrs by 2025, with ROCE and Cost better than industry peer average while maintaining credit rating

2016 Key Business Plan

- Optimize cost through cost saving program
(Save to be Safe)
- Monetize competitive projects by finalizing FID target in 2016

2017-2020 Key Business Plan

- Refocus portfolio, priority on low risk project
- Expand legacy asset by leveraging competency & experience in shallow water and mature field operation in ASEAN



Source: PTTEP 5-year Investment plan, 15 Dec 2015



Coal: Survive & Thrive

Target : 30 MTPA (equity vol.), ROIC > Industry Avg. in 2028

2016 Key Business Plan

- **Cost Reduction in Jembayan & Sebuku**
- **Value Creation**
 - Upgrade coal quality & joint infrastructure sharing
 - 3rd party coal sourcing, coal blending with BANPU, sales of Sebuku High ash coal and freights chartering



2017-2020 Key Business Plan

- **Marketing & Trading activity initiatives -**
4.4 MTPA with additional margins by 2020
- **Value creation from coal value chain**



*Estimated FY costs saving USD 6mn

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Gas and Infrastructure Business Strategic Plan: Enhance Productivity and Reliability

Gas



Gas

- **Ensure Gas Supply Security**
- **Utilize optimum capacity from existing assets**
- **Create value added from natural gas and by product**

Infrastructure



SMART Infrastructure



*Infrastructure
Business*

- **Build Sustainable Business**
- **Provide professional services**
- **Operational Excellence**

Gas and Infrastructure : Energy Security & Pipeline Integrity

Target : 30 MTPA (equity vol.), ROIC > Industry Avg. in 2028

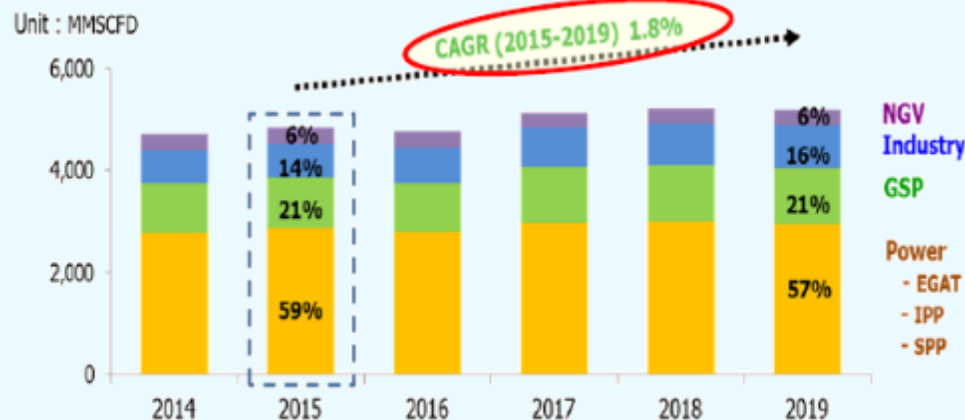
2016 Key Business Plan

- **Productivity Improvement**
 - Increase GSP efficiency
 - GSP energy consumption optimization
- **Complete LNG Terminal Phase II**
- **Ensure supply security**
 - Sanction key infrastructure project
 - Long-term LNG supply Procurement

2017-2020 Key Business Plan

- **Value Creation along gas value chain**
 - Increase NGL value as Gasoline blending
 - Increase bypass gas value
 - Increase revenue from gas pipeline engineering service
 - Explore LNG market in AEC

Demand Supply



New Supply	PTTEP (M9)	LNG Ph#2				
LNG Capacity (MTA)	5	5	5	10	10	10
Pipeline Capacity (MMSCFD)	<ul style="list-style-type: none"> • BVW#7 compressor unit4 4,580	<ul style="list-style-type: none"> • 4th onshore Nakhon Sawan • Offshore compressor 7,180	7,180	<ul style="list-style-type: none"> • 4th onshore Midline compressor • Nakhon Ratchasima 7,480	7,480	<ul style="list-style-type: none"> • Comp Wangnoi 7,480
GSP Capacity (MTA)	6.7	6.7	6.7	6.7	6.7	6.7

* Remark: FSRU (West) reviewing new strategy and COO

GPSC: Strengthen Cogeneration & Utility provider for industrial user and Being Renewable Power Portfolio for PTT Group



Target : Additional firm growth capacity 1,000 MW in 2019

2016 Key Business Plan

- Productivity improvement on Existing Cogeneration & IPP Power plant
- Enhance revenue from new capacity (NNEG Project & power plant bidding in ASEAN)
- Increase Renewable Portfolio
 - Execute Waste To Energy project at Rayong
 - Expand solar project investment in Japan

2017-2020 Key Business Plan

- Business Growth in Domestic and Regional market
 - Develop water business model
 - Develop cogeneration power plant in Super cluster & Special economic zone
 - Develop Energy storage business

Growth Commitment



Downstream Business Strategic Plan: Downturn is Our Turn

Oil



- Strengthening Corporate Image
- Marketing excellence
- Retail Focus
- International Expansion

Trading



- Generate revenue from Western corridor
- Uplift Trading Margin
- Capture more opportunities from international market

P&R



- Develop synergy and integration opportunities
- Enhance value added from oil-based value chain

Oil BU: Regional Top Brand

Target: Regional Top Brand, measured by Brand Equity

2016 Key Business plan

- **Create Value creation**
 - Marketing excellence by using big data analytics system
 - Enhance Sales force capability
 - Apply OpEx in oil operation process
- **Expand retail & commercial business**
 - Expand Service Station, Non-oil, LPG Station & FIT Auto
 - Expand PTT Lube to be global brand
- **Support Social Enterprise program**
 - “ยิ้มประชารัฐ smile shop”
 - Royal project “Cafe’ Amazon coffee bean”

2017-2020 Key Business Plan

- **International Market Expansion in AEC**

Digital & Retail Focus



Blue Card: Happiness in a single pass

✓ Mileage card with Rewards and Privileges



Trading BU: Thai Premier Multinational Energy Company

Target: Capture Supply/Demand Imbalance Opportunities to boost OUT-OUT > 50% of Portfolio with High Productivity

2016 Key Business plan

- **Expand OUT-OUT volume**
 - Move supply glut crude from LATAM/WAF/MED to ASIA/EU
 - Create refined product trading from ME to EU & SEA to AUS
 - Expand petrochemical product trading from India/ME to US/EU
- **Increase OUT-OUT margin per unit by productive asset-based trading**
 - Increase gasoline blending activity
- **Utilize appropriate price risk management to secure trading margin**

2017-2020 Key Business plan

- **Seek trading opportunities from international market trends**



PTTGC: To be a Leading Chemical Company for Better Living

Target : Double size Petchem Revenue in 2024, Listed in DJSI , 1st Quartile ROIC in 2024

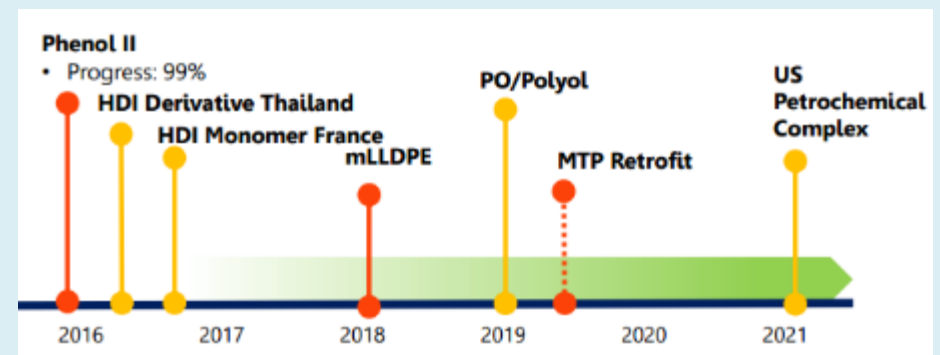
2016 Key Business Plan

- **Operational Excellence and Margin Improvement**
 - Operational Excellence program
- **Upgrade & Sustain Core**
 - Phenol II (Phenol 250 KTA, Acetone 155 KTA)
 - HDI (Hexamethylene diisocyanate) derivatives (12 KTA)

2017-2020 Key Business Plan

- **Upgrade & Sustain Core**
 - LLDPE + Hexene-1 (LLDPE 300 KTA)
 - Under study: Map Ta Phut Retrofit
 - Under study: US Petrochemical Complex
- **Develop new products**
 - Bio-Hub (Ethanol 0.8 ML/day, Electrical 16-20 MW)
 - Methyl Ester Plant II (200 KTA)
 - PO/Polyol, C4 chain, Specialty & Compound

Key Business Plan Projects



Phenol2	HDI Thailand	HDI France	MLLDPE	PO/Polyol	US Petrochem
345 MUSD	40 MEUR	17 MEUR	288.2 MUSD	1,000 MUSD	
					Ethylene 1 MTA
PH 250 KTA AC 155 KTA	HDI Derivative 12 KTA	HDI Monomer 70 KTA	MLLDPE 400 KTA Hexene-1 34 KTA	PO 200 KTA Polyol 150 KTA	HDPE 700 KTA MEG 500 KTA EO 100 KTA
63 MUSD	8 MEUR	4 MEUR	59 MUSD		

TOP: A Leading fully integrated refining and petrochemical company in APAC

Target : Double size Petchem Revenue in 2024, Listed in DJSI , 1st Quartile ROIC in 2024

2016 Key Business Plan

• Operational Excellence and Margin Improvement

- HMR (Hydrocarbon Management Review)
- Cost improvement

• Upgrade & Sustain Core

- LAB (Linear Alkyl Benzene, 120 KTA)
- 2 SPPs (239 MW, PPA with EGAT 180 MW)
- Sriracha Terminal Synergy
- Marine fleet & Jetty extension

2017-2020 Key Business Plan

• Upgrade & Sustain Core

- Clean Fuel Project (CFP) Implementation
- Project study: Lube Integrated Supply Chain (LISM) and PX plant (PX 1,788 KTA, BZ 683 KTA)

• Seek Further Integration Opportunities

- Solvent & Distributor (Vietnam & AEC)
- Logistics / B2B (Indonesia)
- M&A / International

Key Business Plan Projects

LAB

- TPX JV with Mitsui (75% : 25%)
- Upgrade existing Benzene and Kerosene into higher valued product
- Capacity: 100 KTA (First Integrated LAB Plant in SEA)
- Benefit = add to GIM ~ 0.4-0.6 \$/bbl
- CAPEX = 400 M\$



Progress 99%
COD: Q1 2016

2 SPPs

- Low risk power business enhance income stability
- Support reliability of electricity & steam supply for TOP Group
- Total power capacity 239 MW
- Total steam capacity 498 T/H
- CAPEX = \$380 M



Progress 97%
COD: Q2 2016

CFP

- Enhance competitive advantage of the refinery and maintain 1st quartile performer
- Enhance capability to upgrade lower value product into higher value product and ability to process heavier (cheaper) crude oil



Basic Design Package 2016

IRPC: Leading Integrated Petrochemical Complex in Asia by 2020

Target : Double size Petchem Revenue in 2024, Listed in DJSI , 1st Quartile ROIC in 2024

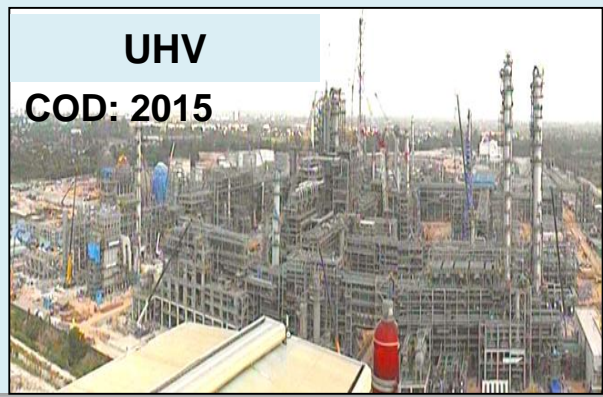
2016 Key Business Plan

- **Operational Excellence and Margin Improvement**
 - Transform **"Delta"** Operational Excellence for Margin Improvement to be **"Everest"** project for the entire business transformation to increase EBITDA & ROIC (Everest GIM 1.4\$/BBL in 2016 to 4\$/BBL in 2018 onward)
- **Upgrade & Sustain Core**
 - UHV project COD

2017-2020 Key Business Plan

- **Upgrade & Sustain Core**
 - Fully PP Integrated (PP 160 KTA, PP compound 140 KTA)
 - Ensure **"Everest"** Project target achievement by 2020

Key Business Plan Projects



PPE & PPC

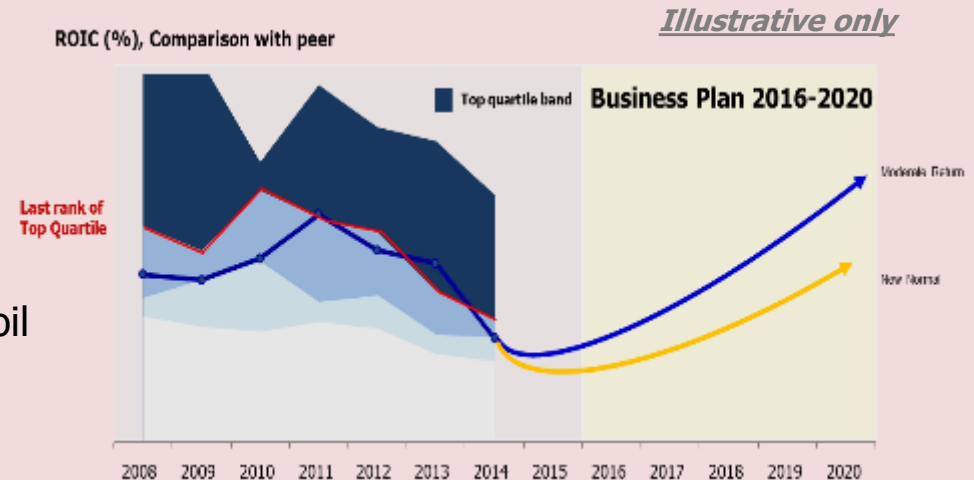
• PPE	160 KTA
• PPC	140 KTA
Start up Q2, 2017	

PTT Group Portfolio Optimization to secure future growth platforms

2016-2020 Key Business Plan

- **Enhance value from core assets**
 - **Extract full potential value from core assets**
 - Upstream : Productivity and Portfolio Management
 - Downstream : Value chain enhancement
 - **Divest non-value creation assets**
 - **Restructure non-performing assets**
- **Prepare for growth**
 - Organic growth : Capacity expansion of core assets
 - Inorganic Growth : M&A (Take opportunity from low oil price)
- **Strengthen efficiency**
 - Align PTT investment management process with all subsidiary
- **Portfolio restructuring**
 - **Consider spinning off potential BU to reflect its intrinsic value**
 - **Define share service structure and governance system to ensure synergy and governance among PTT group**

Forecast PTT ROIC 2016-2020



PTT Group 2016 -2020 Strategic Directions



Vision: "Thai Premier Multinational Energy Company"

Aspiration:

BIG: FT 100

LONG: Listed in DJSI

STRONG: Top quartile ROIC

Strategic Direction:

Pride & Treasure of Thailand

Pride

Inclusiveness



Stakeholder Management

SPIRIT

Strengthen from Inside by "SPIRIT"



Good Governance



Treasure

Sustainability



Upstream

- Enhancing energy supply security and sustainable value creation



Gas/Infrastructure

- Long term value creation/ Sustainable Growth Platform for Region through Services and Solution Provider Excellence



Downstream

- Top quartile performance in Asia Pacific



Portfolio restructuring

- Portfolio optimization to secure future growth platforms

Enablers:

People

Finance

Technology

ICT

Manage all Stakeholders with care to become a Pride of Thailand



2016-2020 Key Business plan

Proactive Management

- Launch Stakeholder Impact Assessment (SIA) in business plan development and Strategic Investment Management (SIM) process
- Identify and Assess key stakeholders in terms of their impact and influence to ensure key business plan achievement
- Stakeholder Satisfaction and Expectation Management by monitoring via Stakeholder Dashboard System in regularly

Reactive Management

- Monitor hot issues as agenda based in PTT Management Committee Meeting
- Stop Hate Speech by taking Legal action

PTT Corporate Reputation Score

by stakeholders comparison



Champion of PTT Stakeholders



Strengthen from inside by PTT VALUE "SPIRIT"



Rebrand PTT to be "Pride & Treasure of Thailand"

Strengthen from Inside

- Doing by heart
- Be faithful, honest, high morals
- PTT Group Ambassador

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Transform for Transparency

- Value to social, community and country
- PTT Group business transparency
- Trust and credibility in PTT Group businesses

2016 - 2020 Key Business plan

Embed 'RIT' into Employees' DNA

- Dedicate SEVP to be RIT Champions



- Promote employees to be PTT Ambassadors (KPI : 1 Dept. 1 Activity)

Rebrand PTT to be "Pride & Treasure of Thailand"

- Promote energy literacy to all Thai people
- Promote "จิตอาสา" activities to all employee

Sharing PTT Best Practice to Social and Community

- โครงการผลิตไฟฟ้าเพื่อชุมชน
- โครงการ 84 ตำบล
- ระบบผลิตและจ่ายก๊าซชีวภาพชุมชน

Capability Development

- Accelerate development through PLLI courses

Ensure Corporate Governance & Anti-Corruption in all business operations



Target

- Business culture with honesty, transparency and anti-corruption
- PTT to be recognized as a 'CG' role model company

- Key Business Plan 2016-2020**
- Continuously review and revisit **Corporate Governance (CG) and Anti-Corruption Policy** to comply with global practices
 - Incorporate **Anti-Corruption Policy** in PTT Way of Conduct for PTT Group
 - Join force with **Thailand Private Sector** to promote Collective Action against Corruption (CAC)
 - Collaborate with **PTT Group and partners** to operate its business under anti-corruption policy
 - Strengthen **Anti Corruption Network** in both public and private sector



