

# INVESTING IN UKRNAFTA

Ukraine Energy Day

12<sup>th</sup> June 2017

# UKRNAFTA AT A GLANCE

# UKRAINE'S DOMINANT E&P COMPANY WITH LARGELY UNTAPPED POTENTIAL



## Key Facts about UKRНАFTA:

- One of Ukraine's largest businesses (among top-20 companies by revenue)
- Country's largest oil producer
  - ✓ **90% of local oil reserves**, 70% of local oil production
- A material producer of gas in Ukraine
  - ✓ 6% of reserves, 7% of production
- The holder of the largest retail filling network in Ukraine
- A joint stock company with 50%+1 owned by state-run company Naftogaz; the rest is in private hands

## Key Financials & Production, 2016

**Revenue: \$882m**  
**EBITDA<sub>adj</sub>: \$112m**

**Oil: 11.2 MMbbls**  
**Gas: 46 bcf**

**Oil&Gas: 19 MMboe or 51 Mboe/d**

**Reserves (proven)-to-Production >15x**

## Asset Base

**2P reserves**

**465 MMboe**

**Licenses/Operating**

**82**

**Active Wells**

**1523**

**Drilling rigs**

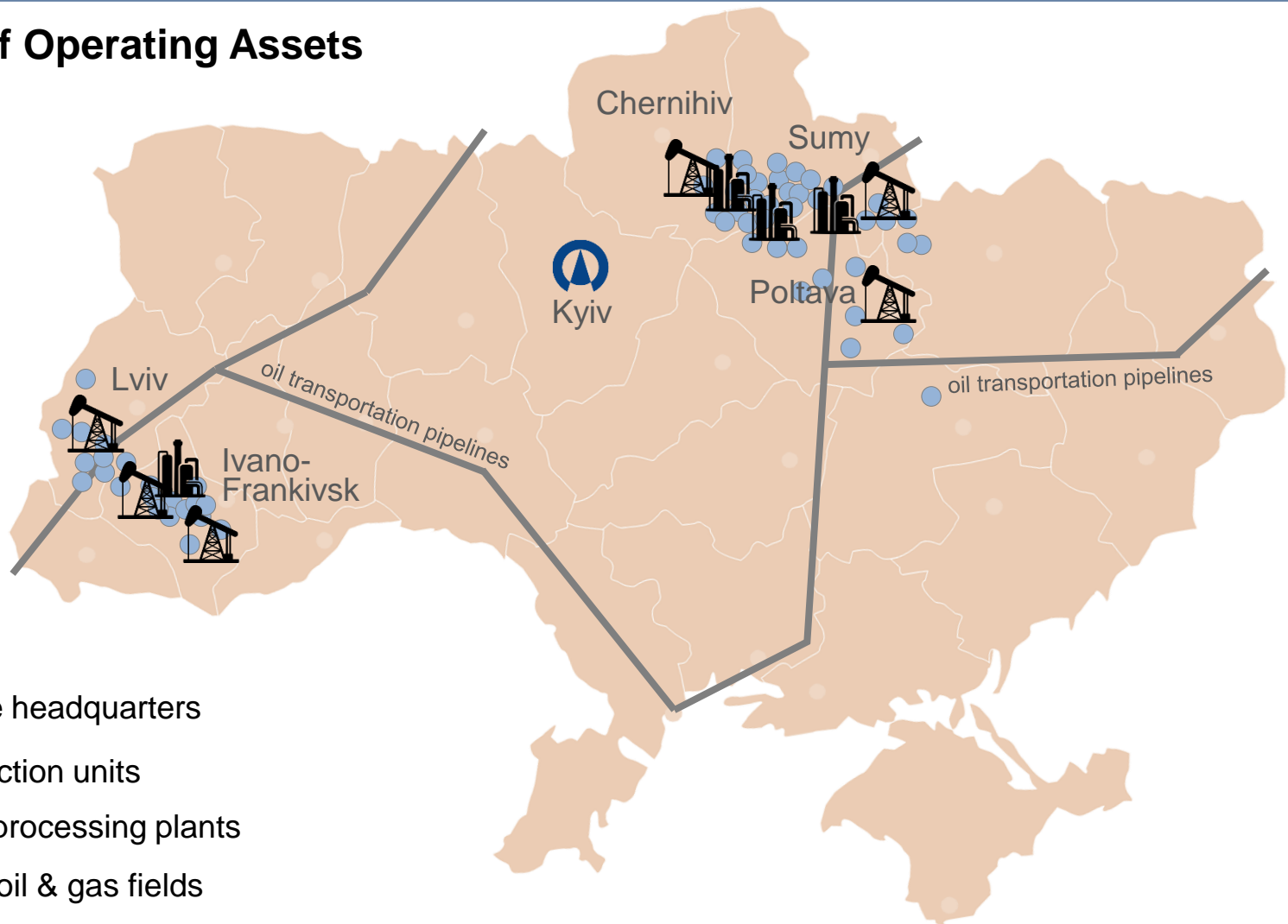
**46**

**Fuel Filling Network**

**537 stations**

# UKRНАFTA'S OIL FIELDS DOMINATE UKRAINE'S TWO MAJOR OIL AND GAS BASINS

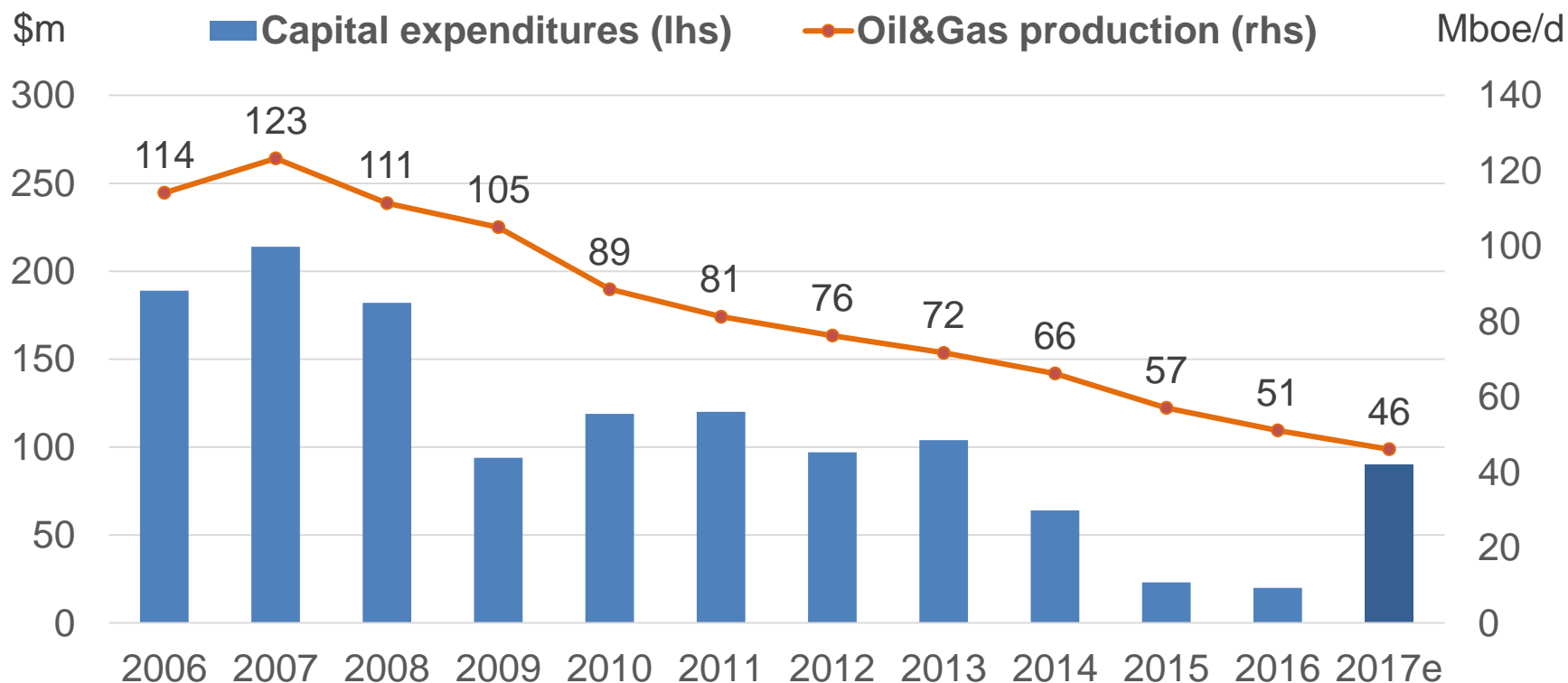
## Location of Operating Assets



# DESPITE A GREAT ASSET BASE, UKRNAFTA SIGNIFICANTLY UNDERPERFORMS ITS POTENTIAL



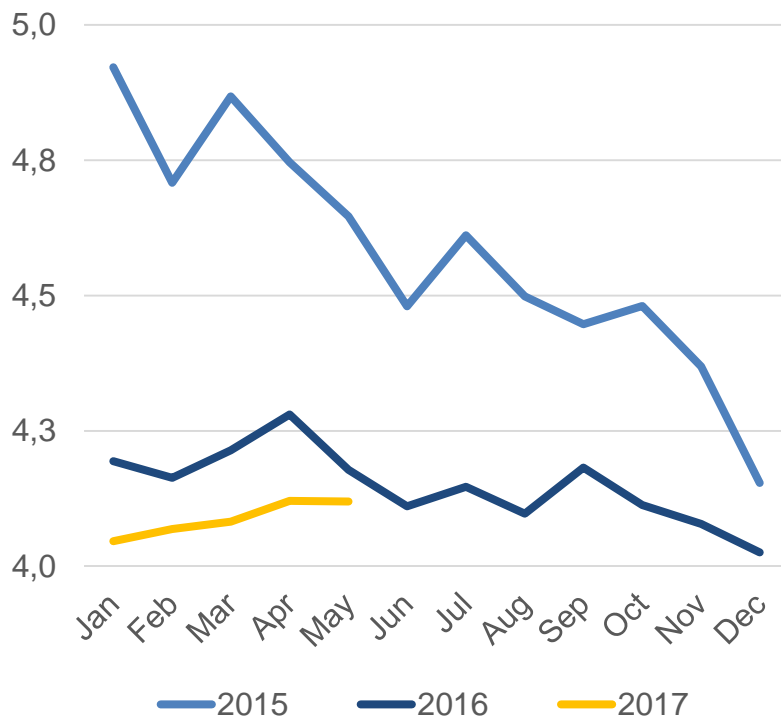
- Decade-long underinvestment has resulted in a production slump.
- Disputes between the major shareholders, and then between the company and the State Fiscal Service have weakened the company's balance sheet



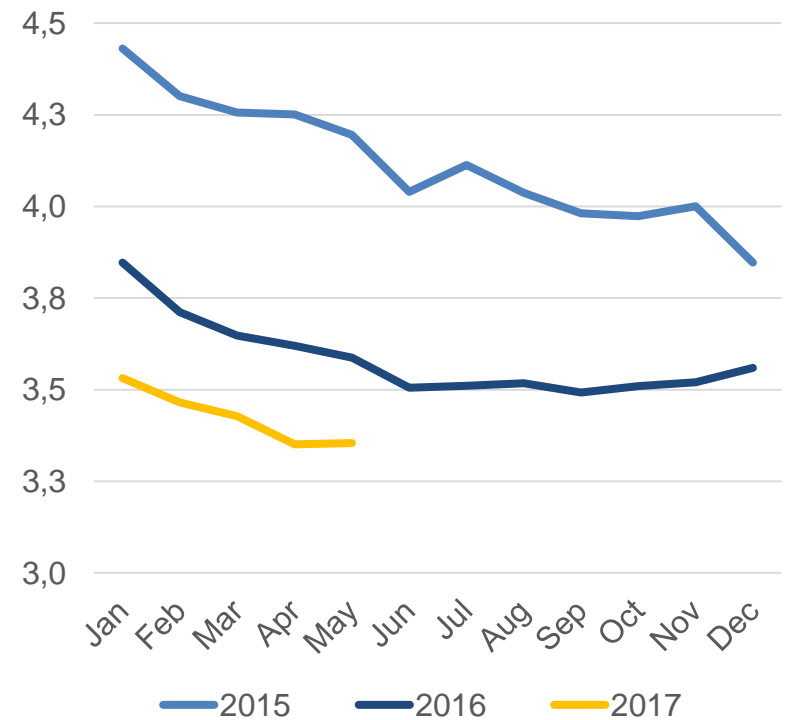
# ... BUT SIGNS OF RECOVERY ARE ALREADY VISIBLE

**Production was held up during 2016 and into 2017– for the first time in many years**

**Oil & Condensate Production:  
000 tonnes per day**



**Gas Production:  
million m<sup>3</sup> per day**



# NEW MANAGEMENT TEAM

# A NEW MANAGEMENT TEAM HAS BEGUN TO TRANSFORM & MODERNISE UKRNAFTA



## **Mark Rollins** **Executive Board Chairman**

Over 25 years of work experience in the oil and gas industry. Worked for a number of prominent international energy companies including Shell, ARCO and BG Group



## **Mavriky Kalugin** **EVP Upstream**

A career oilman with extensive international experience in brownfield and greenfield developments, field management, IOR/EOR projects. Held senior roles at ARCO, ConocoPhillips, Occidental, TNK-BP, Cairn, Petrofac.



## **Iryna Yevets** **Chief Financial Officer**

A professional expert in finance with over 20 years of practical experience at leading Ukrainian companies, including top roles at dairy producer Ukrproduct, beverages producer Rosinka and telecoms operator MTS Ukraine.



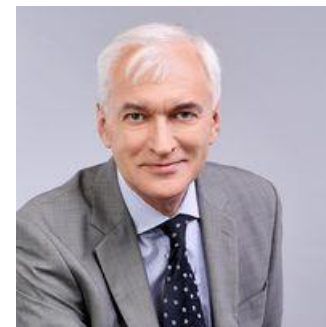
## **Robert Whalley** **EVP Technology & Services**

More than 30 years of work experience in oilfield services. Held senior roles at Schlumberger and Integra.



## **Jonathan Popper** **EVP Corporate Development & Strategy**

An experienced oil industry professional and economist. Most of his 28-year long career in the oil and gas industry was spent in the international oil and gas major BP.



## **Genadiy Radchenko** **EVP Social Development & Sustainability**

Occupied various important jobs in business and government, including Head of Corporate affairs and Communications at Nestle and Vice-president at National Television Company of Ukraine.



## Strengthen the balance sheet

- A rehabilitation financial plan has been developed
- It allows for full repayment of the tax debt over 3 years
- A giant leap in reinvestment is envisaged

## Make business modern and lean

- 6 (25%) structural units has been liquidated with more to follow
- New business units are being created with P&L accountability
- “Top 10” Modernization Projects are being implemented

## Develop and grow business

- New, ambitious production targets have been set
- Investment strategy is developed; investment projects are identified
- Seeking cooperation with investors & partners

# NEW RESERVES ASSESSMENT

# NEW ASSESSMENT OF RESERVES WAS ONE OF THE IMPORTANT ACTIVITIES OF NEW MANAGEMENT

- In 2016, DeGolyer and MacNaughton evaluated 2P reserves at 465 MMboe
- Evaluation showed a large increase
- Reserves-to-production ratio exceeds industry norms – a clear indication for production growth potential
- DeGolyer and MacNaughton reserves are based on old, conservative development plans. Management believes reserves are significantly under-stated

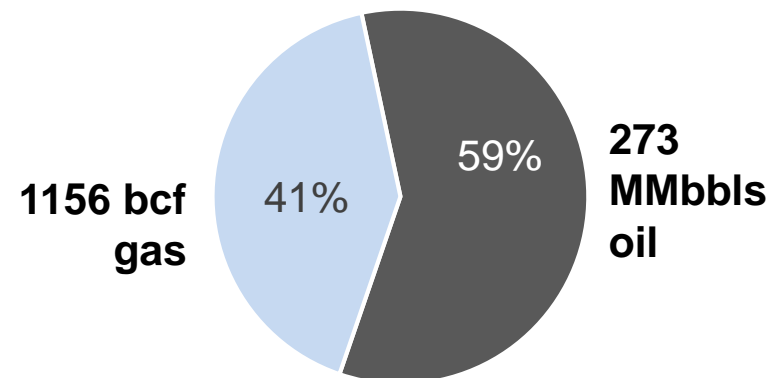
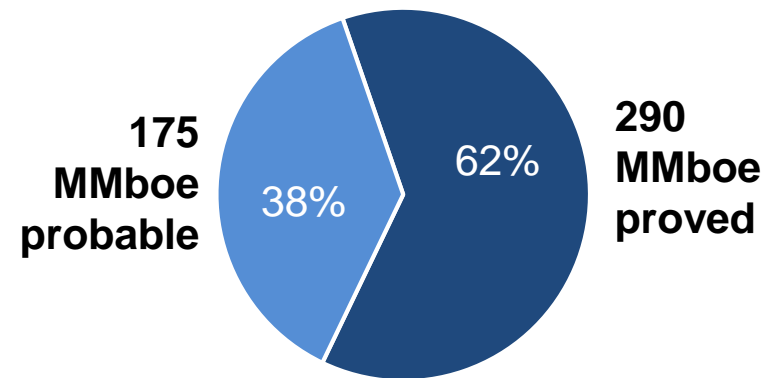
## Reserves (proven)-to-Production Ratio:

**Current:**  
**>15x**



**Target:**  
**c 10x**

## 2P Reserves: 465 MMboe



# DEVELOPMENT STRATEGY

# WITH THE RIGHT STRATEGY AND MANAGEMENT UKRNAFTA CAN LEAP DECADES IN A FEW YEARS



## Oil:

**Goal:** increase oil production by 100% to **21 MMbbl by 2025**  
**Investment plans:** 140 new wells and sidetracks (\$475m);  
150 new injectors (\$495m); ~2,500 stimulation & optimization  
operations (\$100m)



## Gas:

**Goal:** increase gas production by 50% to **65 bcf by 2025**  
**Investment plans:** 20 new wells and sidetracks (\$90m);  
~250 stimulation & optimization operations (\$115m);  
modernization of the gas processing plants (\$150m)



## Drilling & Services:

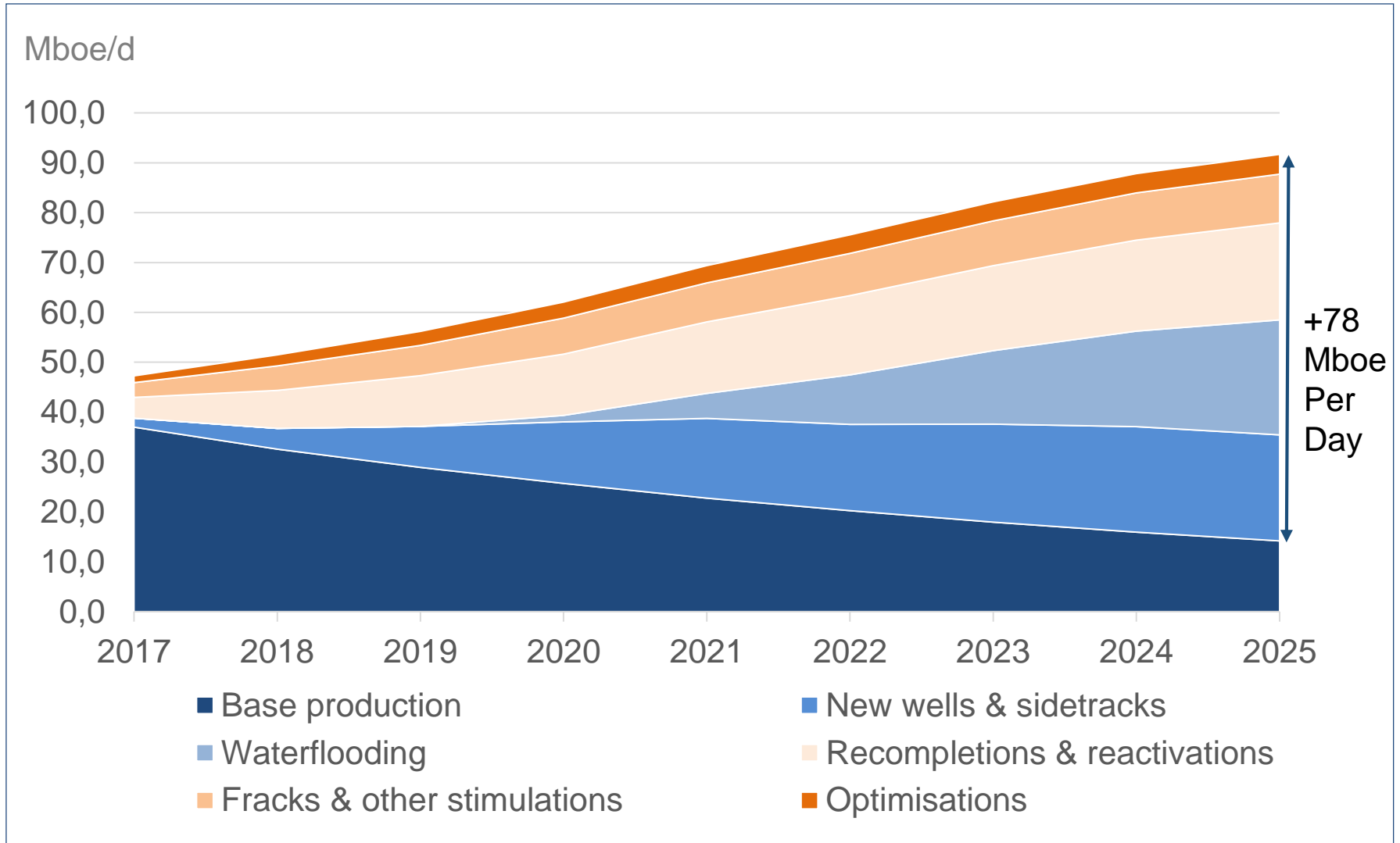
**Goal:** Establish a competitive drilling and oil-field service  
business serving Ukrnafta and third parties, based on new  
equipment and the latest technology



## Retail:

**Goal:** Rebrand the retail business to increase sales  
volumes. Promote LPG and CNG at our sites

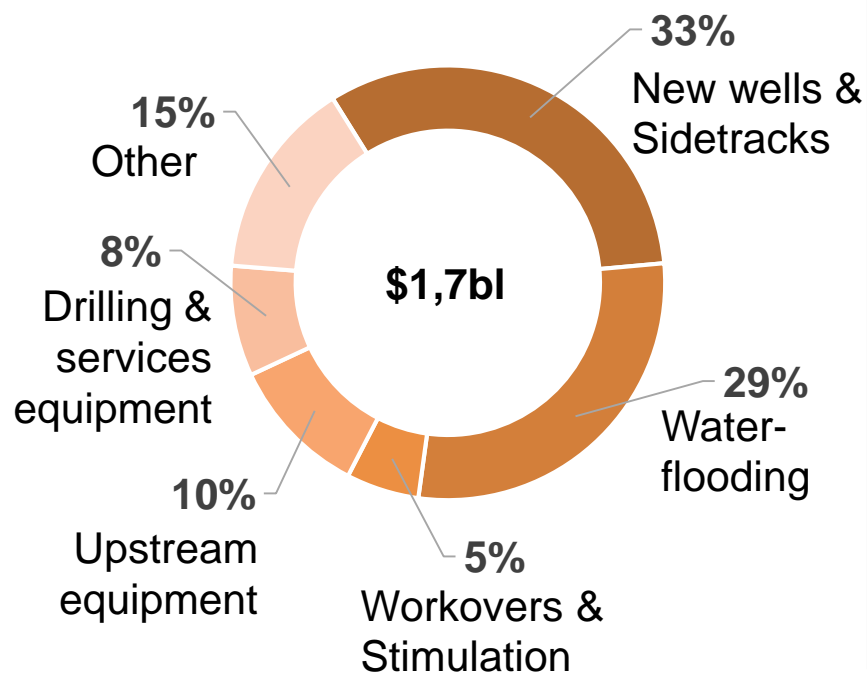
# A PRODUCTION PLAN WAS DEVELOPED ASSUMING OPTIMUM USAGE OF THE COMPANY'S RESOURCES



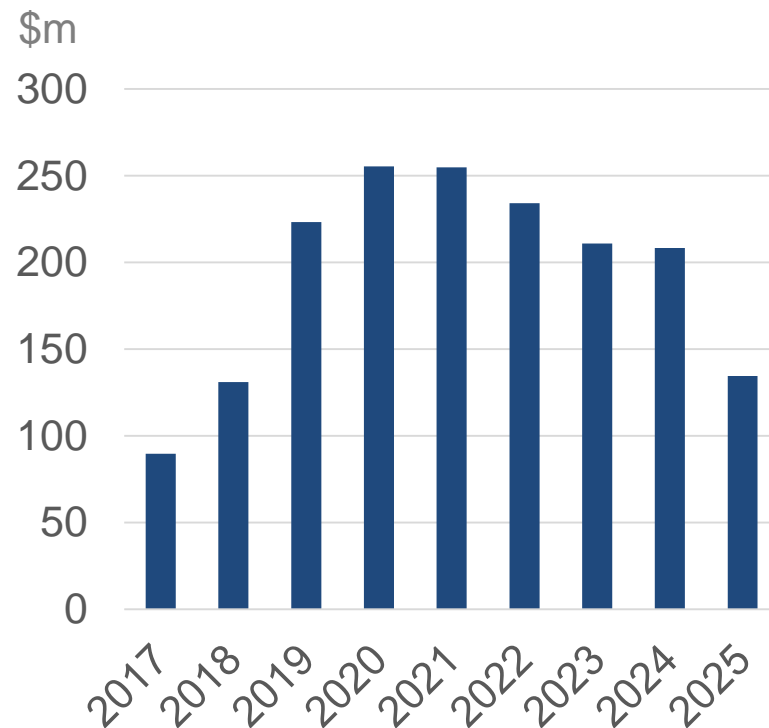
# DEVELOPMENT STRATEGY FOR 2017-2025 ENVISAGES \$1,7bl OF INVESTMENT



## Investment Priorities



## Investment Plan



**TO DRIVE OPERATING PERFORMANCE UKRНАFTA SEEKS INVESTORS AND PARTNERS FOR JVs & COMMERCIAL COOPERATIONS**

# OPPORTUNITIES FOR INVESTORS AND PARTNERS



## Off balance sheet project financing

- **Leasing**
- **Build, Own, Operate and Transfer**

## Equity Investments and Joint Ventures

- **For new assets and new licenses**

## Innovative Commercial Arrangements

- **Energy Service Contracts**
- **Risk Service Contracts**
- **Production Enhancement Contracts**
- **Production Sharing Contracts**

# BOOSTING OIL PRODUCTION: SELECTED OIL FIELD OPPORTUNITIES (1/2)

## 1) Boryslavske Oilfield

**2P reserves:** 400 Mbbl

**Area:** 30 km<sup>2</sup>

**Active wells:** 331

**Average depth:** 500 – 1,200 m

**Water Cut:** 77%

## 2) Bytkiv-Babchynske Field

**2P reserves:** not audited

**Area:** 177 km<sup>2</sup>

**Active wells:** 168

**Average depth:** 2,200 m

**Water Cut:** 25%

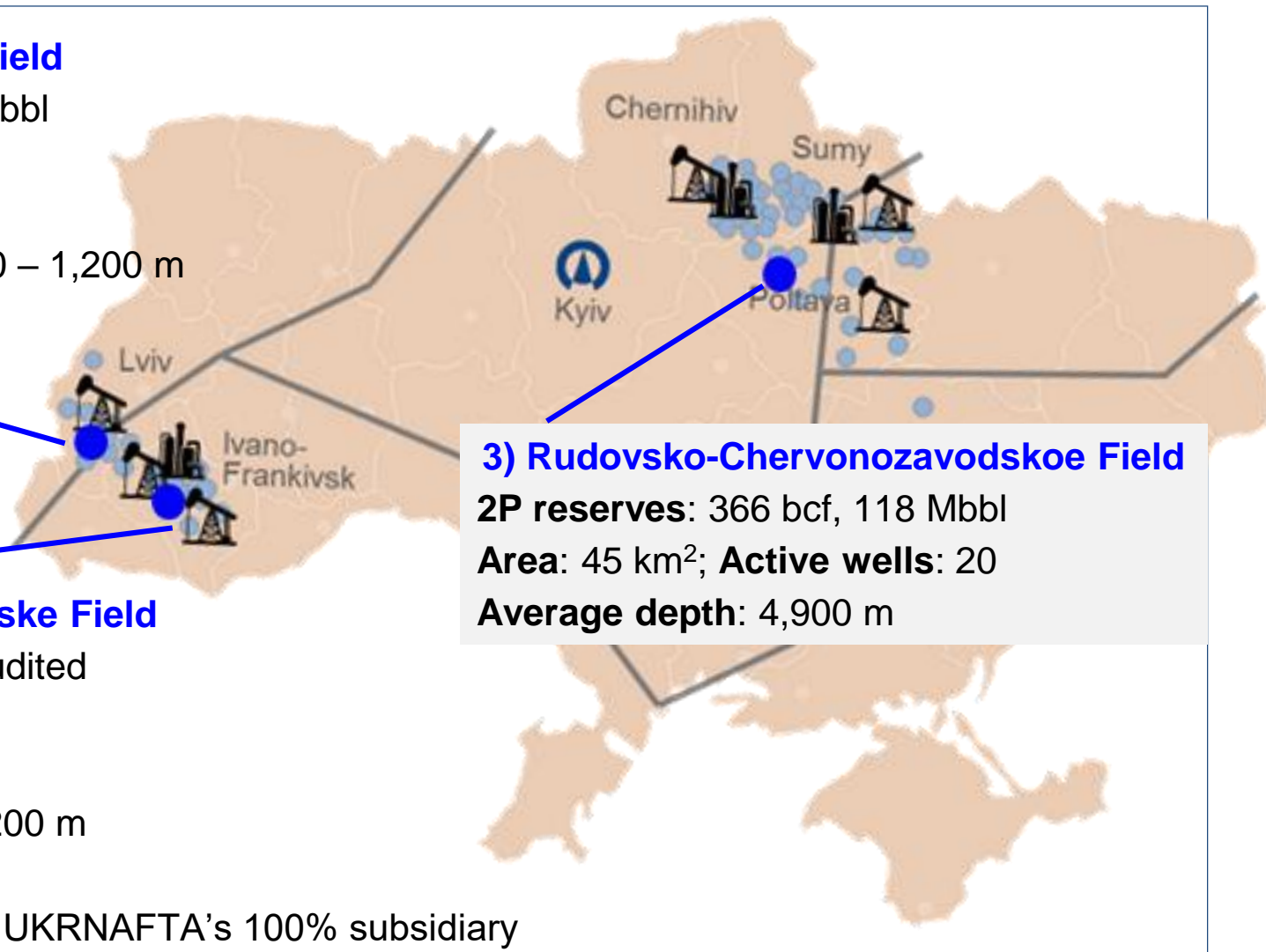
**License:** owned by UKRNAFTA's 100% subsidiary

## 3) Rudovsko-Chervonozavodskoe Field

**2P reserves:** 366 bcf, 118 Mbbl

**Area:** 45 km<sup>2</sup>; **Active wells:** 20

**Average depth:** 4,900 m



# BOOSTING OIL PRODUCTION: SELECTED OIL FIELD OPPORTUNITIES (2/2)



**Actual business plans for the fields will be developed jointly with new partners, but we made preliminary calculations of investment needs and production potential. In some cases production exceeds conservative reserve estimates.**

## 1) BORISLAVSKE OIL FIELD

### Long-term potential (2018-36):

- Investments: \$74m or \$9,6 per bbl over 20 yrs
- Total production: 7,8 MM bbl
- Production increase from current 0,4 kb/d\* to 1,2 kb/d by 2021, with peak production of ~1,8 kb/d in 2026-27

### 5 year prospective (2018-22):

- Investments: \$32m
- Production: 2,1 MMbbl or est. \$75m (\$50/bbl, and net of 29% rental tax)

## 2) BYTKIV-BABCHYNSKE FIELD

### Long-term potential (2018-36):

- Investments: \$263m or \$9,5 per bbl over 20 yrs
- Total production: 28 MM bbl
- Production increase from current 1,0 kb/d to 4,2 kb/d by 2020, with peak production of ~7,4 kb/d in 2023-24

### 5 year prospective (2018-22):

- Investments: \$162m
- Production: 7,5 MMbbl or est. \$270m (\$50/bbl, and net of 29% rental tax)

## 3) RUDOVSKO-CHERVONOZAVODSK

### Long-term potential (2018-36):

- Investments: \$130m or \$0,3 per Mcf over 20 yrs
- Total gas production: 442 bcf (commodity gas share is 52%)
- Production increase from current 40 MMcf/d\*\* to 110 MMcf/d by 2020, with peak of ~119 MMcf/d in 2022

### 5 year prospective (2018-22):

- Investments: \$124m
- Production: 177 bcf, or est. \$442m (\$6,7/Mcf, with 52% commodity gas share, net of 29% rental tax)

Note: \*thousand barrels per day; \*\*million cubic feet per day

# BORISLAVSKE FIELD IN DETAIL



## ASSET

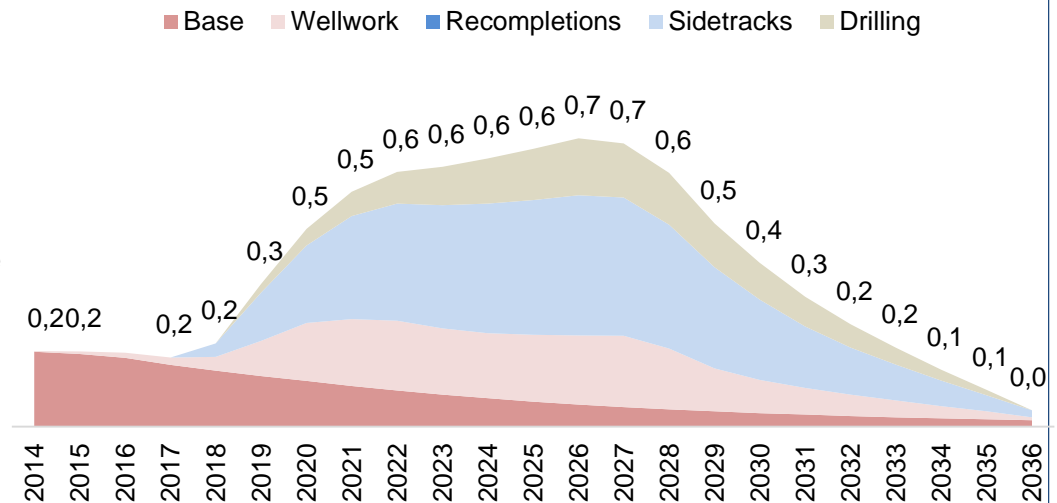
- **License:** held by Ukrnafta PJSC, valid until Feb 2019
- **Location & area:** Lviv region, Western Ukraine, area 30 km<sup>2</sup>
- **2P reserves** (DeGolyer & McNaughton): oil – 54 ktons; gas – 8 mln m<sup>3</sup>
- **History:** development started 1886, 1700 wells drilled
- **Average depth:** 500 – 1 200 m.
- **Active producing wells:** 331
- **Production in 2016:** oil – 23 ktons
- **Water Cut:** 77%



## PROJECT

- 8 new vertical wells with incremental oil production rate up to 8 t/d/w
- 29 sidetracks with incremental oil production rate from 7 to 18 t/d/w
- Number of fracs, stimulations and optimizations planned till 2036 with cumulative oil production of 256 kton till 2036
- **Total investment size: \$74m**
- Total production: 7,8 MM bbl
- DevEx: 9,6 \$/bbl for 20 yrs

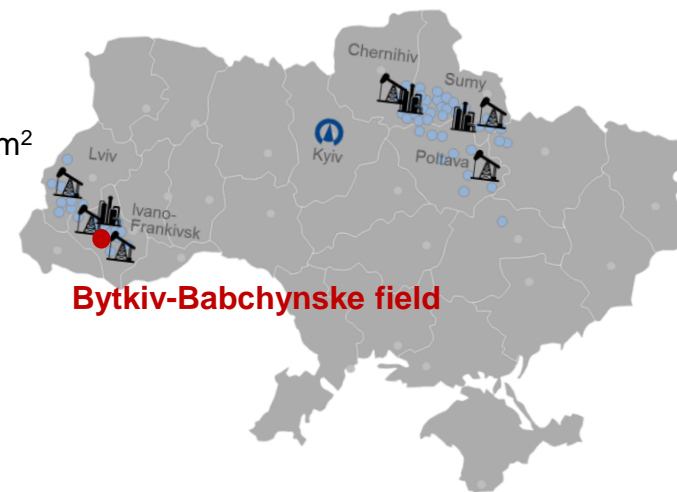
Oil production in 2014 - 2036, mln bbl



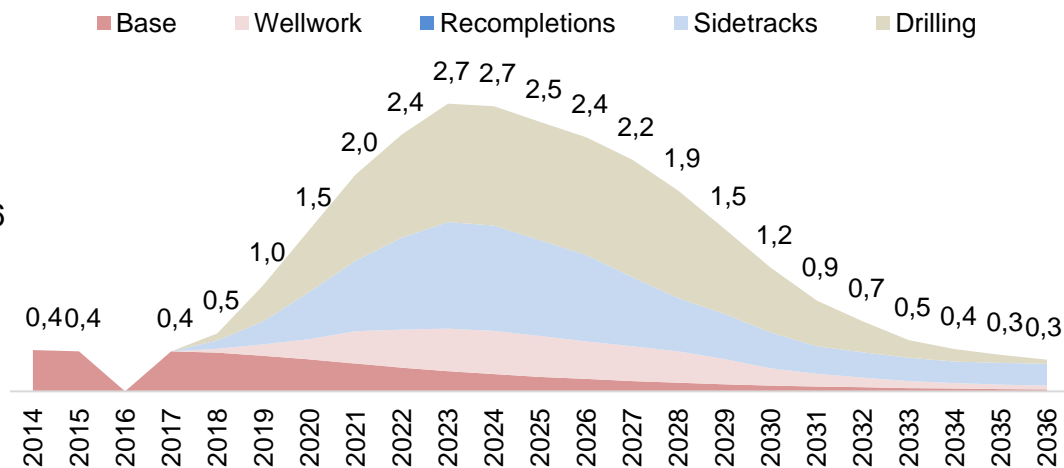
# BYTKIV-BABCHYNSKE FIELD IN DETAIL

## ASSET

- **License:** Bytkiv-Babchenske oilfield, held by Ukrkarpatoil Ltd. (100% owned by Ukrnafta PJSC), valid until: January 2037
- **Location & area:** Ivano-Frankivsk region, Western Ukraine, area 177 km<sup>2</sup>
- **2P reserves** (statutory recoverable): oil – 3 263 ktons
- **History:** development started 1889, 674 wells drilled
- **Average depth:** 2 200 m.
- **Active producing wells:** 168
- **Production in 2015:** oil – 51 ktons
- **Water Cut:** 25%



Oil production in 2014 - 2036, mln bbl



## PROJECT

- 46 new vertical wells with incremental oil production rate up to 15 t/d/w
- 38 active well conventional sidetracks with incremental oil production rate up to 10 t/d/w
- Number of fracs, stimulations and optimizations planned till 2036 with cumulative oil production of 477 kton till 2036
- Infrastructure upgrades (waterflood, gas lift, pipelines): \$19m for 8000 m<sup>3</sup>/d of water
- **Total investment size: \$263m**
- Total production: 28 MM bbl
- DevEx: 9,5 \$/bbl for 20 yrs

# RUD-CHERVONOZAVODSKOE FIELD IN DETAIL

## ASSET

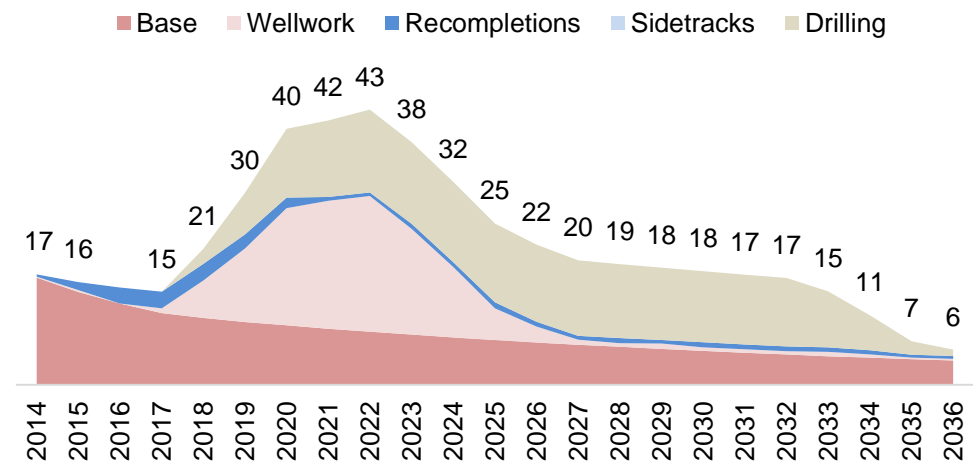
- **License:** held by Ukrnafta PJSC, valid until July 2024
- **Location & area:** Poltava region, Central Ukraine, area 45 km<sup>2</sup>
- **2P reserves** (DeGolyer & McNaughton): oil – 16 ktons; gas – 10 373 mln m<sup>3</sup>
- **History:** development started 1987, 53 wells drilled.
- **Average depth:** 4 900 m
- **Active producing wells:** 20
- **Production in 2016:** gas – 400 mln m<sup>3</sup>
- **Share of commodity gas:** 52%



## PROJECT

- 7 new vertical wells with incremental gas production 150 – 200 th m<sup>3</sup>
- Number of stimulations and recompletions to other zones till 2036 with cumulative gas production of 4 075 th m<sup>3</sup> till 2036
- Investment in LPG extraction system upgrade, compressors from 2 to 4 cycles upgrade, electro-compressors: \$64m
- **Total investment size: \$130m**
- Total gas production: 442 bcf

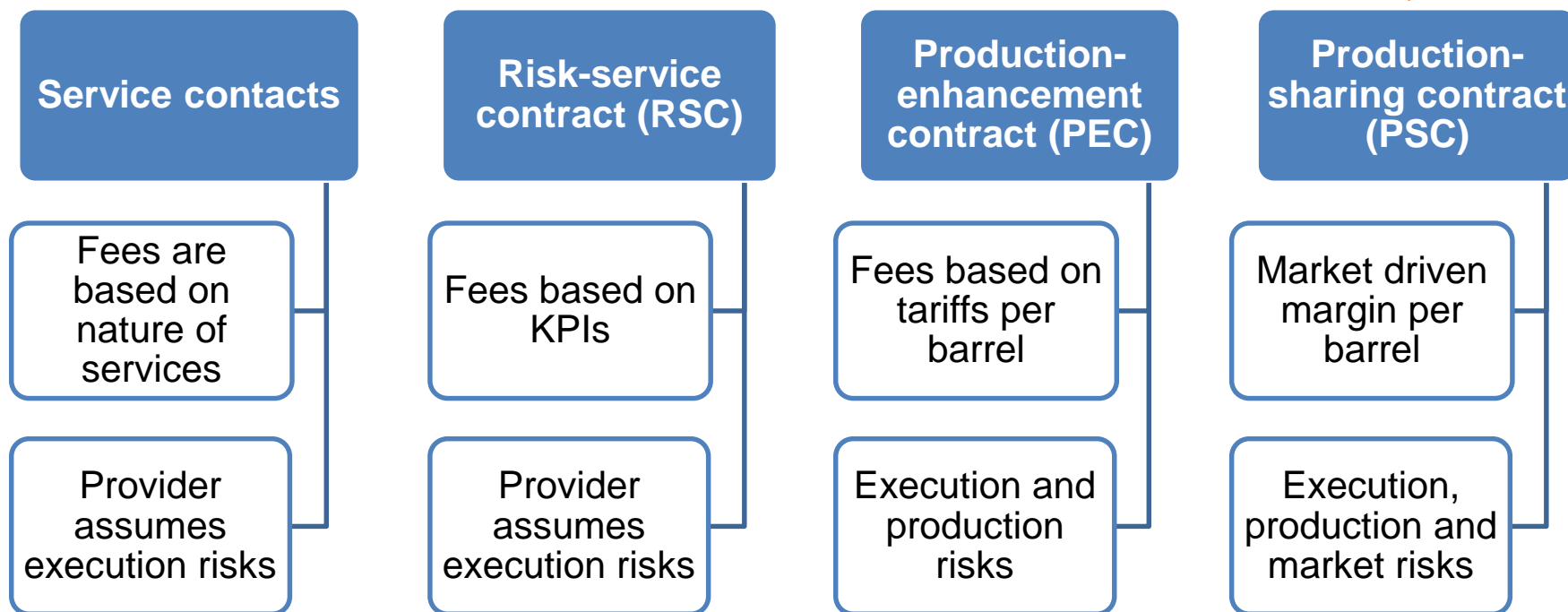
Gas production in 2014 - 2036, bcf



# COOPERATION ARRANGEMENTS FOR UPSTREAM

By 2025, production from new wells and sidetracks shall reach 21 Mboe/d,  
production from stimulations and optimisations – 56Mboe/d

## Risk/Reward Profile



**Establish a leading market position in drilling and/or services in a rapidly expanding market, through creation of a majority JV position based on a guaranteed work scope.**

**Ukrnafta's long term drilling plan envisages ~22 new wells & 6 sidetracks per year, valued at some 50 million \$ of services revenue per year. Activity expansion by UGV and private companies will create a total market of \$ 250 million per year.**

## REQUIRED INVESTMENT

- Mobilize rigs and/or service assets and expertise, new or idle, to combine with Ukrnafta's existing service arms
- Drilling rigs 220. 320 and 400t, sidetrack rigs 160t
- Cementing and frac equipment

## COMMERCIAL STRUCTURE

- Investor to take a majority position in the Joint Venture and operate it
- Share of ownership based upon a valuation of assets and contract value
- Anchor contracts for Ukrnafta's workscope on a preferred supplier basis



# UKRNAFTA LOSES LARGE POTENTIAL REVENUE AT RUN-DOWN GAS PROCESSING PLANTS



## POTENTIAL PROJECT OVERVIEW

### Modernisation of a Glinsk-Rozbyshiv Gas Plant

#### Project Scope:

Upgrade LPG extraction system, upgrade compressors from 2 cycle to 4 cycle, select electro-compressors

**Investment: \$50-60m**

Gas: +20 MM m<sup>3</sup>/yr

LPG: +34 ktons/yr

**Economic effect: +\$22m p.a.**

## COOPERATION STRUCTURE

### A long-term energy service agreement (as an example)

- Contractor provides a turn-key solution for Ukrnafta
- Service fee depends on the actual energy savings achieved