CASH CALLS, CASH FLOWS & IMPACT ON OIL REVENUES

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Janak Mayer, Partner › janak.mayer@enalytica.info
Nikos Tsafos, Partner › nikos.tsafos@enalytica.info

http://enalytica.info
Before co-founding enalytica, Janak led the Upstream Analytics team at PFC Energy, focusing on fiscal terms analysis and project economic and financial evaluation, data management and data visualization.

Janak has modeled upstream fiscal terms in all of the world’s major hydrocarbon regions, and has built economic and financial models to value prospective acquisition targets and develop strategic portfolio options for a wide range of international and national oil company clients. He has advised Alaska State Legislature for multiple years on reform of oil and gas taxation, providing many hours of expert testimony to Alaska’s Senate and House Finance and Resources Committees.

Prior to his work as an energy consultant, Janak advised major minerals industry clients on a range of controversial environmental and social risk issues, from uranium mining through to human rights and climate change. He has advised bankers at Citigroup and policy-makers at the US Treasury Department on the management and mitigation of environmental and social impacts in major projects around the world, and has undertaken macroeconomic research with senior development economists at the World Bank and the Peterson Institute for International Economics.

Janak holds an MA with distinction in international relations and economics from the Johns Hopkins School of Advanced International Studies (SAIS), and a BA with first-class honors from the University of Adelaide, Australia.
Nikos Tsafos has a diverse background in the private, public and non-profit sectors. He is currently a founding partner at enalytica. In his 7 ½ years with PFC Energy, Nikos advised the world’s largest oil and gas companies on some of their most complex and challenging projects; he also played a pivotal role in turning the firm into one of the top natural gas consultancies in the world, with responsibilities that included product design, business development, consulting oversight and research direction.

Prior to PFC Energy, Nikos was at the Center for Strategic and International Studies (CSIS) in Washington, DC where he covered political, economic, and military issues in the Gulf, focused on oil wealth, regime stability and foreign affairs. Before CSIS, he was in the Greek Air Force, and prior to his military service, Nikos worked on channeling investment from Greek ship-owners to Chinese shipyards.

Nikos has also written extensively on the domestic and international dimensions of the Greek debt crisis. His blog (Greek Default Watch) was listed as one of “Europe’s Top Economic Blogs” by the Social Europe Journal, and his book “Beyond Debt: The Greek Crisis in Context” was published in March 2013.

Nikos holds a BA with distinction in international relations and economics from Boston University and an MA with distinction in international relations from the Johns Hopkins School of Advanced International Studies (SAIS).
SOA’S CASH CALLS AND OFF-RAMPS

STATE OF ALASKA: CASH CALLS BY PHASE ASSUMING 25% EQUITY

$ MM

-14,000 -12,000 -10,000 -8,000 -6,000 -4,000 -2,000 0 2,000 4,000 6,000

Pre-FEED (2014-2015)
-104 -104 -55 -55

FEED (2016-2018)
-486 -486 -417 -266

Construction (2019-2023)
-11,727 -4,955 -4,055 -3,455

Online (2023+) Annually
3,986 3,445 3,109 2,885

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- Proceed & Authorize next tranche of cash
- Abandon Project
- Pay T/C $50-60MM
- Adjust share by selling down equity
- Proceed & Authorize next tranche of cash
- Abandon Project
- Pay T/C $150-400 MM
- Adjust share by selling down equity
- Too late to abandon project
- Adjust share by selling down equity
- Cover share of project costs

Cash Calls
- Cash flows
- Impact on oil revenues

Cash calls and off-ramps
- Stress testing the base case
STRESS TESTING SOA’S CASH CALLS AND REVENUES

Stress Test  Project CAPEX is 25% higher
+ Sales price is $7/mmbtu vs. $15/mmbtu in base case
+ Average utilization is 80% vs. 100% in base case

STATE OF ALASKA: CASH CALLS BY PHASE ASSUMING 25% EQUITY

Cash calls and off-ramps > stress testing the base case

Base Case Construction (2019-2023)

Stress Case Construction (2019-2023)

Base Case Online (2023+)

Stress Case Online (2023+)

Cash calls and off-ramps > stress testing the base case
‘IN KIND’ W/ EQUITY OFFERS MORE DOWNSIDE PROTECTION

‘In value’ structure protects producers, not state, in low price environment because of tariff component

Higher SOA equity pushes up the price at which ‘in value’ is better than equity
SOA EQUITY LEADS TO HIGHER GOV’T TAKE ON AVERAGE

‘In value’ entails lowest government take, especially in low prices as cash goes to producers

Split between Fed vs. SOA split depends on both ‘in value’ vs. ‘in kind’ as well as SOA equity share

PERCENT OF CUMULATIVE CASH FLOWS OVER PROJECT LIFE

SOA: IN VALUE

SOA: 20% EQUITY

SOA: 25% EQUITY

<table>
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<tr>
<th>$/MMBTU</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
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Data, Analytics, Solutions. in Energy
IMPACT OF GAS CAPEX ON OIL REVENUES

Lease expenditures for gas are deductible for calculating production value tax for oil.

Relative to a no-gas scenario, oil revenues (royalty and production tax) will fall by $250 mm annually.

If upstream costs end up 50% higher, oil revenues would fall by $374 mm annually vs. no-gas case.

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**STATE OF ALASKA: ROYALTY & PRODUCTION TAX REVENUE FROM OIL**

- **BASE OIL & NO GAS CAPEX**
- **$3 BN UPSTREAM GAS CAPEX**
- **$4.5 BN UPSTREAM GAS CAPEX**

<table>
<thead>
<tr>
<th>Year</th>
<th>Base Oil &amp; No Gas CAPEX</th>
<th>$3 BN Upstream Gas CAPEX</th>
<th>$4.5 BN Upstream Gas CAPEX</th>
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<td>$3,509</td>
<td>$3,299</td>
<td>$3,194</td>
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<td>$3,866</td>
<td>$3,634</td>
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<td>2022</td>
<td>$4,060</td>
<td>$3,777</td>
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<td>2023</td>
<td>$3,610</td>
<td>$3,358</td>
<td>$3,232</td>
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**Notes:**
- Royalty and production tax revenue from oil in the State of Alaska.
- Comparisons are made for different gas CAPEX scenarios.