Senate Finance Committee

CSSB21 Breakeven Analysis

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Scope of breakeven analysis

- Previous analyses by both Roger Marks and EconOne have examined the additional North Slope conventional resources that would need to be unlocked by tax reform in order to make the tax reform revenue neutral in the long run
- Both analyses have concluded that only a relatively small share of the potentially available resources would need to be unlocked in order for total long-run revenue under a CSSB 21 to be equivalent to or greater to that under ACES with no additional resources moved to reserves
- Both analyses are astute, and point to the general conclusion that oil tax reform involves trading near-term revenues for longer-term revenue security
- In order not to simply duplicate these analyses, this breakeven analysis instead focuses on different but related questions:
  - Within the timeframe of DOR production and revenue forecasts (2022), is it possible that a 'crossover' point could be reached, where annual revenues from CS SB21 were higher than those under ACES with no production?
  - How much additional production would need to be put in place for this to be achieved? How do different scenarios for oil price affect this? How do assumptions regarding the portion of new production that is eligible for the GRE affect this?
- Since the State of Alaska will be forgoing significant revenue in the short run in the hope of increased production, the question of the timeframe in which revenues from increased production might materialize is particularly important

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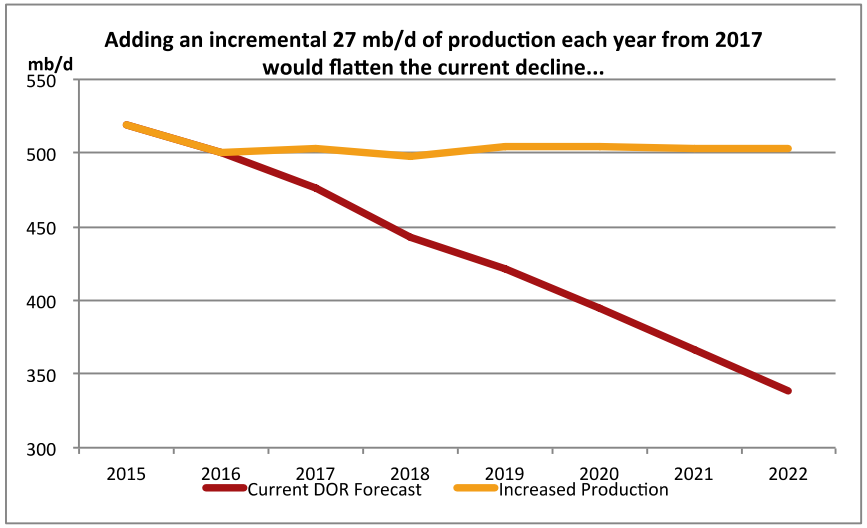
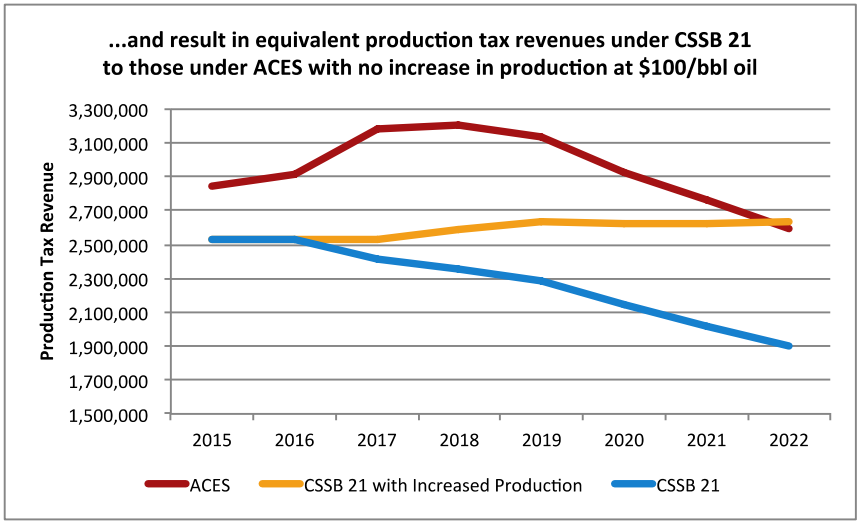
Achieving a ‘crossover’ point

- Upstream oil project development is characterized by long lead times.
- Some impact of increased investment from tax reform might be witnessed in the form of increased drilling activity in the mature fields, creating some additional production with shorter lead times
- Significant new developments, however, will likely have lead times on the order of 3 to 5 years
- As a result, this analysis assumes production equivalent to the DOR forecast from now until 2017, with additional production coming online only after this point
- At $100/bbl oil, an additional **27.5 mb/d of production** would need to be brought on line each year between 2017 and 2022 in order to achieve a crossover point, assuming 50% of new production qualifies for the GRE. This is equivalent to **a Nikaitchuq-equivalent project being brought online each year**
- This level of new production would also flatten the current decline, contributing an **additional 165 mb/d of production by 2022,** and an additional 210 mmb of oil produced between 2017 and 2022





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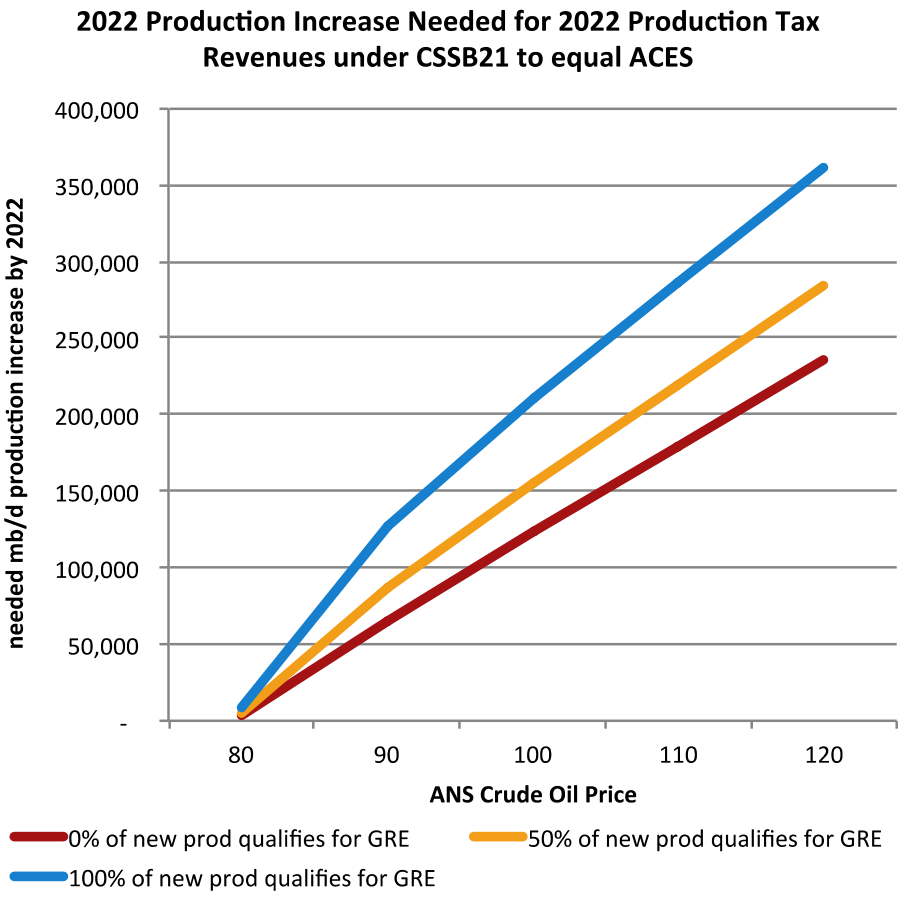
Sensitivity to Oil Price and GRE Qualification

- The amount of new production that must be brought online to achieve a production tax revenue 'crossover' by 2022 varies significantly according to oil price and the proportion of new production that is eligible for the GRE
- At prices below $80, no new production is needed, since revenue from CSSB 21 is actually higher than from ACES in such scenarios
- At $90, an additional 87 mb/d of new production is needed by 2022 (or an additional 14.5 mb/d each year from 2017 to 2022) to achieve revenue crossover by 2022, assuming 50% of new production is GRE-eligible
- At $110, the requirement rises to 220 mb/d of new production by 2022 (or an additional 37 mb/d each year from 2017 to 2022) to achieve crossover under the same GRE assumption



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