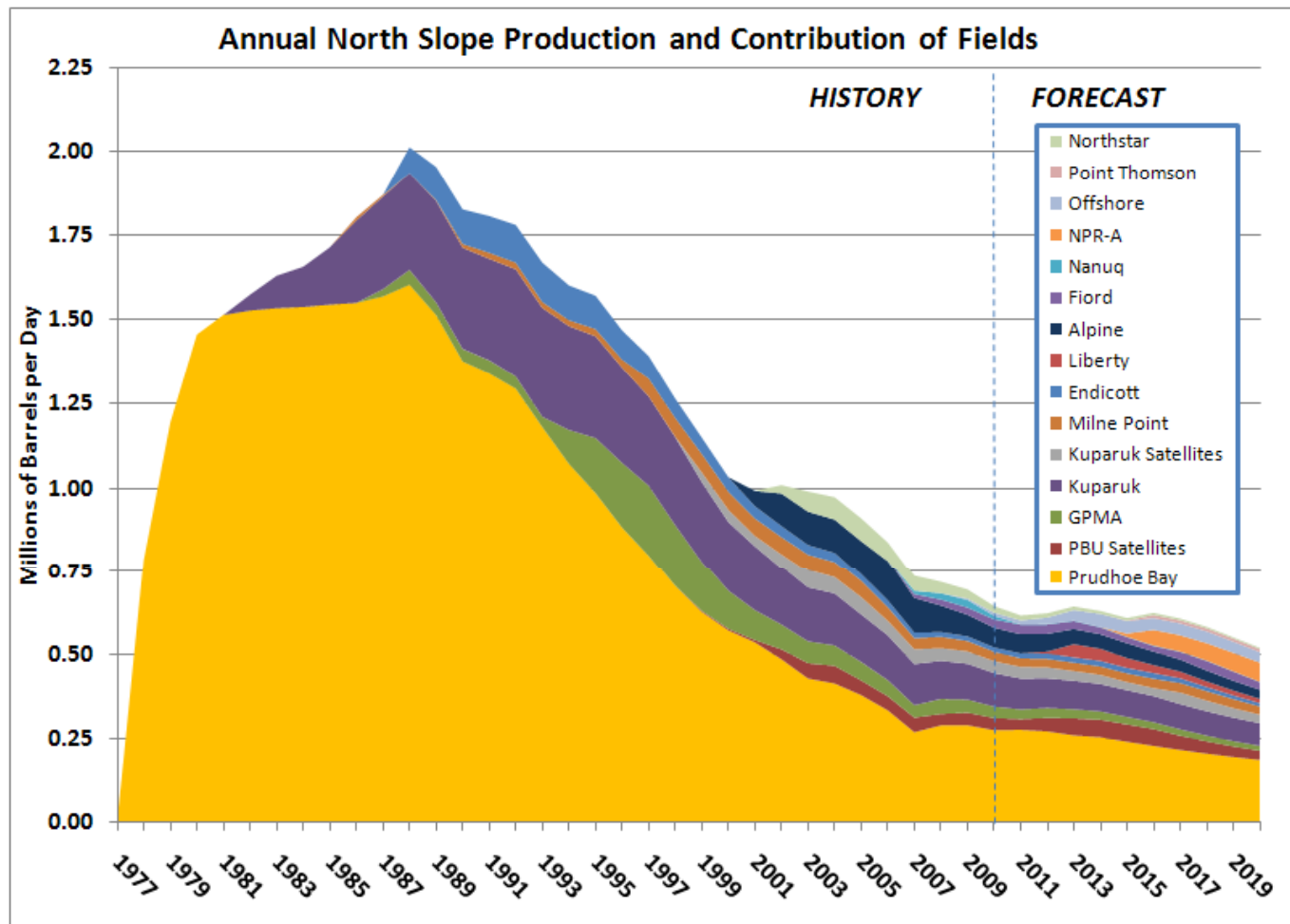


# Issues In Considering SB49

**Senate Resources Committee**  
**March 18, 2011**

# *A Question Of Nature or Nurture ?*



Source: Fall 2010 Revenue Sources Book

# Fiscal System Design

- **2 Parts *Art* to every 1 Part *Science***
- **What works well for one state/country does not necessarily work for another**
  - ↳ Over time it may actually no longer work optimally where it once did
- **Influencing factors include (but not limited to):**
  - GDP & GDP/Capita
  - Energy as % of GDP
  - Infrastructure Availability
  - Infrastructure Capacity
  - Competition from elsewhere
  - Hydrocarbon Basin Maturity
  - Skilled Local Labor Force
  - H S & E
  - Institutional Capacity

# The “Pressure” to Change

- Fiscal system change occurs generally because:
  - a) Governments want their perceived fair share; or
  - b) Attract Investment/Industry

★ *The two are not always the same or even nearly the same*

- Request for change justified by:
  - ‘Objective’ Calculations – model results based on a large number of assumptions
  - ‘Subjective’ Calculations – experts assessing major changes in direction or behavior

# Creating “Best” Fiscal Systems

- Countries and States continually assess their internal needs and their world-wide competitive position to set hydrocarbon fiscal terms
  - Attract Investment
  - Generate revenue for the treasury
  - Create jobs, increase local skill base
  
- There are far more systems in place than there are countries with petroleum legislation
  - Many areas of similarity
  - Many areas of difference
  - Different ‘vintages’ can be active at the same time

# Where is Alaska today?

1. Production continues to decline despite unprecedented prices
2. TAPS (either operational limit or economic limit )
3. Heavy oil potential under assessment
4. New plays on the verge of being unlocked?
5. New resources viewed by some as “stranded”
  - Access to infrastructure
6. Logistical challenges and high costs remain
7. Long lead times to bring on new fields
8. Players
  - Incumbents and new entrants

# Future Scenarios for Alaska

Hard to predict the future in a nice tidy narrow range

- Requires many assumptions that leads to '*noise*' and time and focus taken away from discussing and understanding root causes and the real issues
- Lack of planning data

What are the possible upside/downside scenarios to consider in looking to change ACES?

- Upside – Reduced taxes leads to investment in new resources and technologies that keep TAPS flowing through 2050
- Downside – Reduced taxes, still no new fields brought on line, TAPS reaches limit in the 2020's

# The Importance Of Oil To Alaska

- **Alaska (2010)**

- Oil taxes and royalties accounted for almost 90% of unrestricted General Fund revenue

- **Big 3 (2010)**

- Alaska profits and production accounted for 5% - 30% of their “economy”

*Alaska remains very important to the big oil companies ....  
but the relative importance to them is much, much less than  
it is to the State*



# Some Big Questions ...

- **Is it necessary to change ACES ?**

**Will I get +/- the same investment and production anyway if I do not ?**

**If I get more investment and production, how much more ?**

**Will TAPS obtain oil from “somewhere” to keep flowing, regardless ?**

**How long can I “delay” before being comfortable that I know the likely outcome ?**

**What can I influence ? How ?**

# Some (Very High Level) Metrics ...

- **Difference between 3% and 6% decline**
  - 1.5 to 2 billion barrels (TAPS threshold dependent)
- **150,000 Bopd for 20 years**
  - 1 billion barrels
- **Delays cost money; value halves ...**
  - In 7 years at 10% discount rate
  - In 15 years at 5% discount rate
- **\$100 a barrel (market price) worth to State approximately (undiscounted)**
  - \$40 under ACES
  - \$30 under SB49 (area dependent)
- **\$150 a barrel (market price)**
  - \$75 under ACES
  - \$55 under SB49 (area dependent)

# Some (Very High Level) Metrics ...

- **Put another way, at \$100/Bbl**

- Getting 150,000 Bopd for 20 years that you might not have got is worth ~\$30 billion to the State
- Changing to SB49 if you would have got it anyway costs \$10-15Bn

- **At \$150/Bbl**

- Getting 150,000 Bopd for 20 years that you might not have got is worth ~\$50-60 billion to the State
- Changing to SB49 if you would have got it anyway costs \$15-25Bn

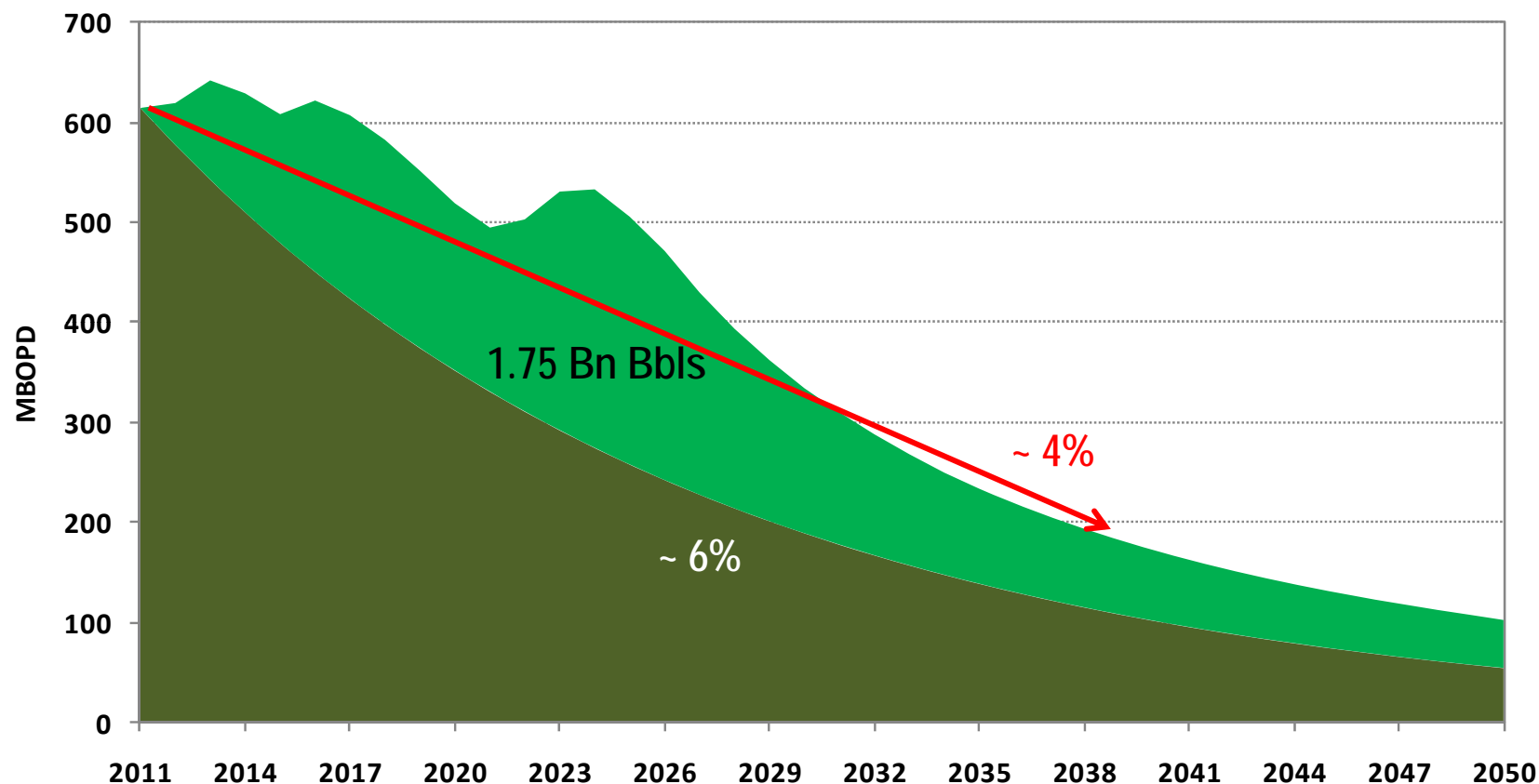
- **Delaying 150,000 Bopd by 10 years (halve value; i.e. discounted)**

- ~\$20 – 40 Bn ?

# Based On Cash Flow Model

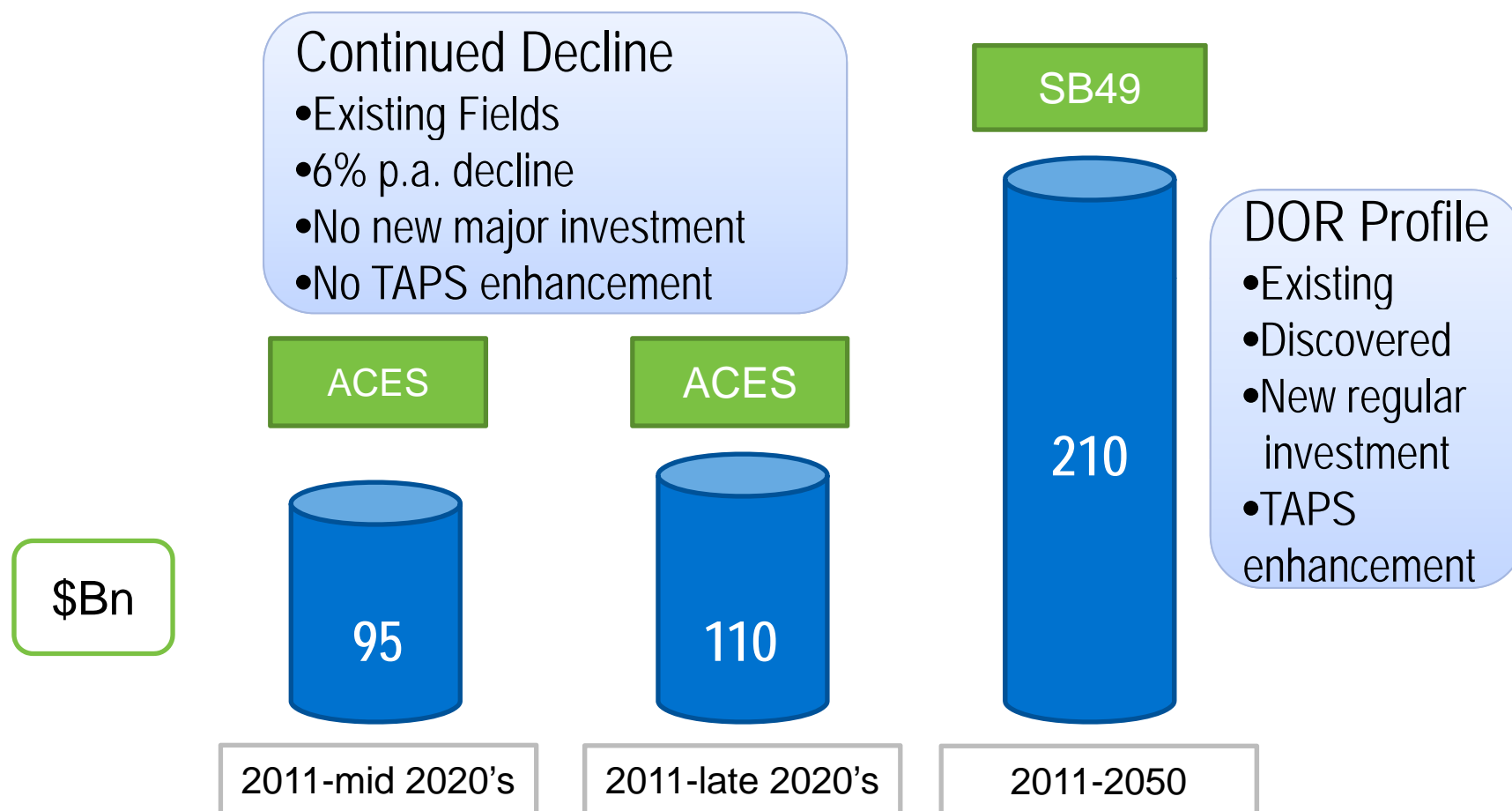
- **Examine the “what if” economic impacts (for example) to try and assess some possible “goalposts”**
  - Change fiscal take and limit long term decline to 3% - 4% (DoR 2010 Fall Profile)
  - Do Nothing and decline is actually around 6%
  - Do Nothing and still limit long term decline to 3% - 4%

# Continued 6% Decline and DOR Fall 2010 Forecast



# State Undiscounted Cash Flow

*~\$100 + Bn Potential Gain....*



\* DOR price & cost forecasts

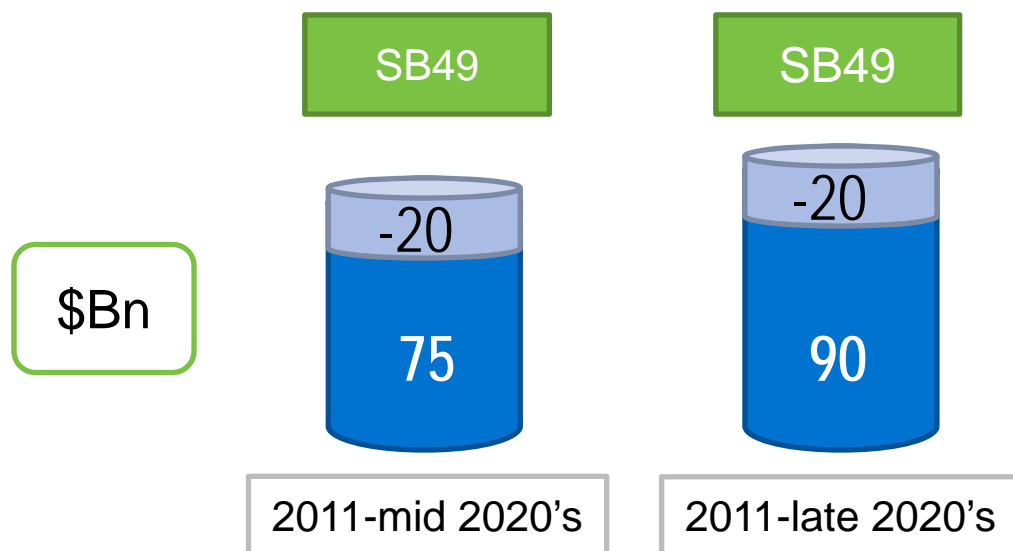
TECHNICAL AND MANAGEMENT ADVISORS TO THE INTERNATIONAL PETROLEUM INDUSTRY

# State Undiscounted Cash Flow

*~\$20-50 Bn Potential Downside....*

Assumes:

- Make change to SB49
- Still no new investment
- No TAPS enhancement

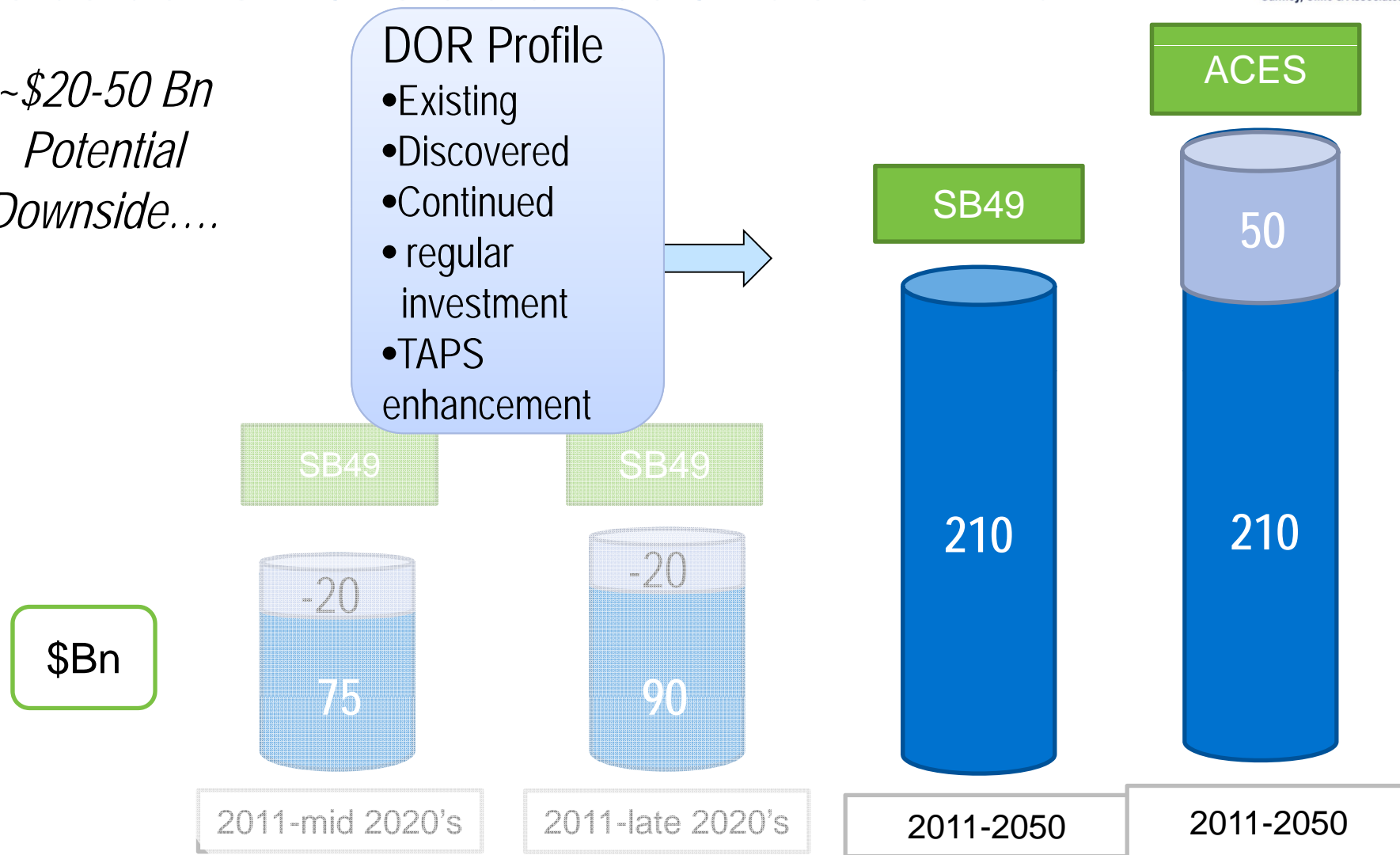


\* DOR price & cost forecasts

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# State Undiscounted Cash Flow

*~\$20-50 Bn  
Potential  
Downside....*



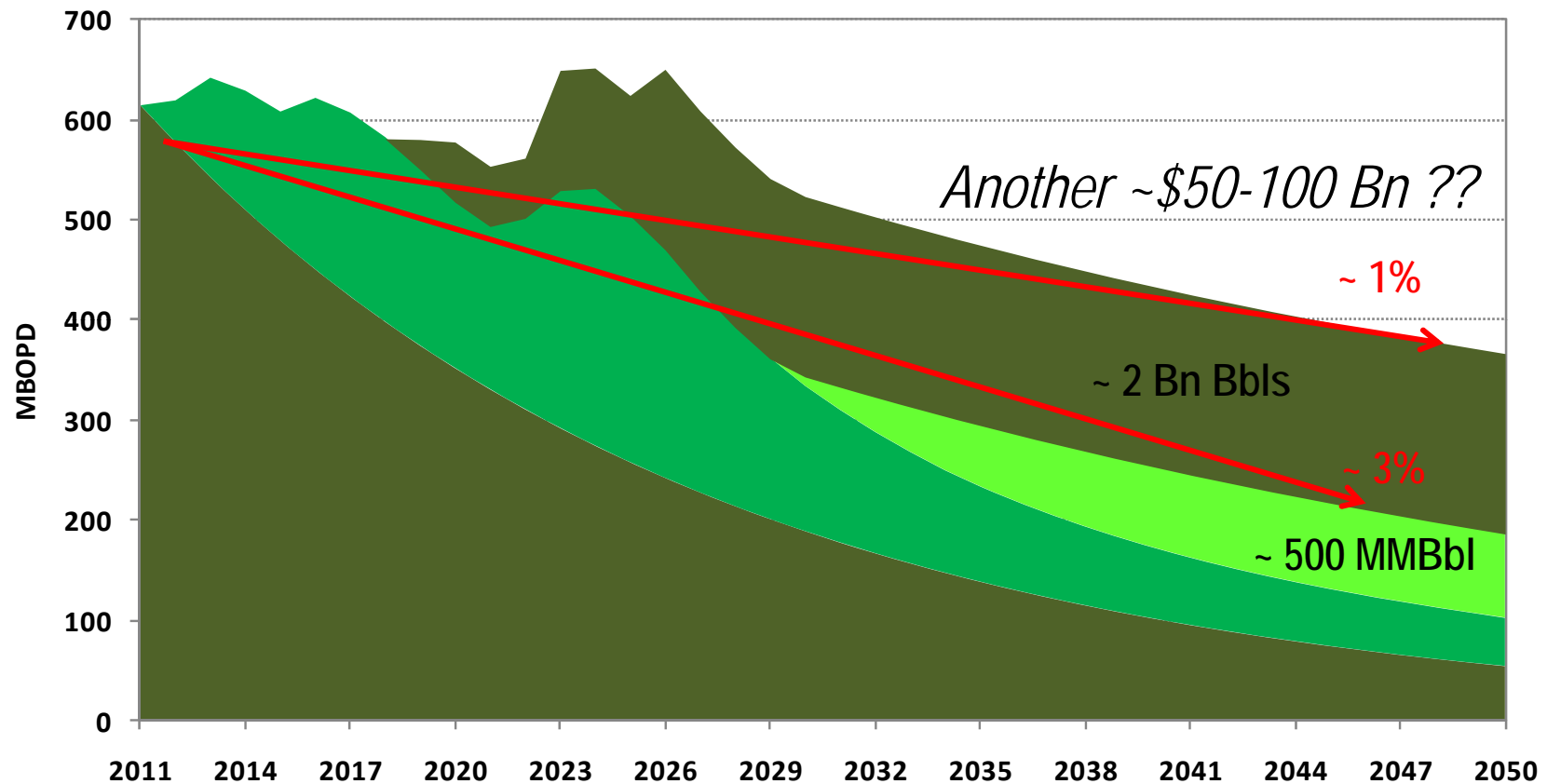
\* DOR price & cost forecasts



# How To Consider The Options

- Examine the “what if” economic impacts of (for example) to try and assess some possible “goalposts”
  - Do Nothing and still limit long term decline to 3% - 4%
  - Do Nothing and decline is actually around 6%
  - Change fiscal take and limit long term decline to 3% - 4%
- **The prize of achieving 3% decline ..**
  - .... or better

# Potentially Better Still



*Ongoing Infield and Exploratory Drilling ....*

*... Heavy Oil and Non-Conventional Resources ?*

# Illustrative Potential Capital Requirements

	Bn Bbls	Cost Range (\$/Bbl)		Capex (\$Bn)	
DOR Fall 2010	5	14		68	
Conventional Oil, Existing Field Areas	1	10	15	10	15
Conventional Oil, New Areas	2	15	25	30	50
Heavy Oil	4	20	40	80	160
<b>If All of the Above (Beyond DOR Forecast)</b>				<b>120</b>	<b>225</b>

*.... and then there are unconventional resources ....*

# Available Investment Capital

- **Producer spending can be put in three categories:**
  - Mandatory – loss of license if they don't
  - Should – monetary penalties / loss of production if they don't
  - Discretionary – used to “balance the books”
- **How much of the lack of new discretionary spending in Alaska is because the ‘tax is too high’ versus significant spending being directed to the top two categories above?**
  - Projects not viable
  - Better alternatives elsewhere at present

# Conclusion

- **Hard to predict the future in a nice tidy narrow range**
- **Potential impact of early pipeline shutdown significant to all parties, but most significant by far to the State**
- **Production Tax one of the possible levers the State can use to incentivize further investments and help extend the life of TAPS**