



# **Overview of the Methodology Utilized to Determine the Net Present Value to Stakeholders**

**State of Alaska – Anchorage Special Session**

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# What are the key factors to determine NPV?

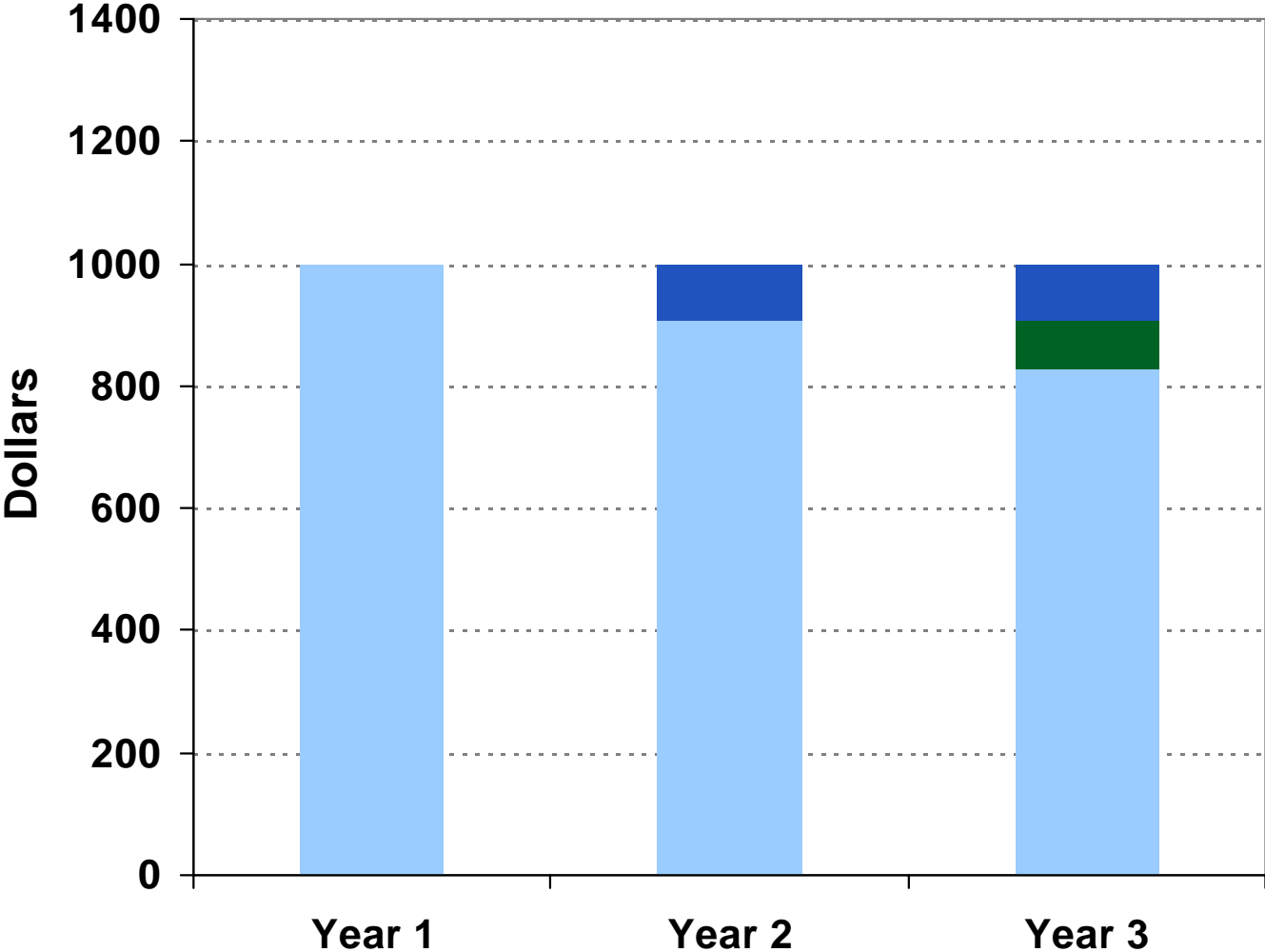
1. An estimate of cash flows, net, by year:
  - Includes capital expenditures, operating expenses and revenue
2. An assumption about the discount rate.

## A discount rate is needed to calculate NPV for each project stakeholder.

- Discount rate is a price. It is the price associated with waiting to get a benefit, versus getting a benefit today.
- Many factors can influence the price of waiting (discount rate). These include: alternative investment returns, ones cost of capital, general inflation conditions, concern for the well being of future generations
- Discount rates<sup>1</sup> vary by stakeholder:
  - State – 5% (Sensitivities of 0%, 2%, 6%, 8% were also used)
  - TransCanada – 8.8%
  - Producers – 10% and 15%

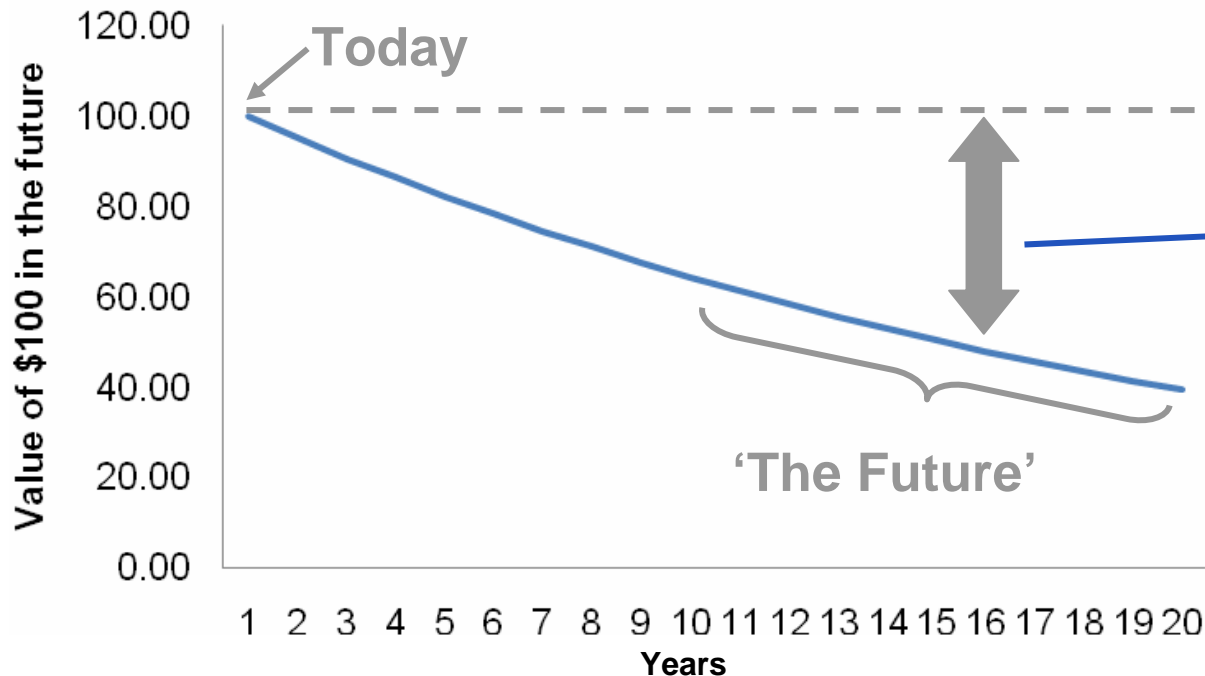
<sup>1</sup> See Section 4.1 of NPV Report for discussion of discount rates used in NPV analysis.

# Discounting Example



**Net Present Value (NPV) calculates how much a stream of future cash flows are worth today.**

**Present Value of \$100 Cash Flow in Future**  
Discount Rate = 5%



**Due to inflation, a dollar today is worth more than a dollar is worth in the future.**

## \$245 billion of Cash Flow → \$61 billion of NPV<sub>5</sub>

- NPV<sub>5</sub> of State's cash flow for a 4.0 Bcf/d project is \$61 billion.
- Total State Net Cash-flow (undiscounted) is \$245 billion.
- These results indicate that the State is indifferent to:
  - Having \$61 billion *today* (Remember - NPV is a measure of what future dollars are worth today)
  - and having \$245 billion of cash flow starting in year 2020 extending through 2044.