# More Time Value of Money 

Physics and Mathematics of Sustainable Energy
College of the Atlantic, October 21, 2022

1. You are considering an investment that will pay you $\$ 2000$ for the next three years. Assume a discount rate of $3 \%$.
(a) In one year you will receive a payment of $\$ 2000$. What is the present value of this payment?
(b) In two years you will receive another payment of $\$ 2000$. What is the present value of this payment?
(c) In three years you will receive yet another payment of $\$ 2000$.

What is the present value of this payment?
(d) What is the total present value of all three of these payments?
2. Repeat problem 1 using a discount rate of $5 \%$.
3. Repeat problem 1 using a discount rate of $7 \%$.

| Year | $r=0.03$ | $r=0.05$ | $r=0.07$ |
| :---: | :---: | :---: | :---: |
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| TOTAL |  |  |  |

4. How much would you pay for this investment?
