## **Supply: Opportunity Costs and Sunk Costs**

Session Name = tiba20, Description = February 21 2023 2820 op cost, Initial Capital = \$0.00, Survey = **no**, Payoff Proportion = **0**, Random Seed = , Relative Earnings Feedback: = **second half**, Skip Instructions = **no**Product Market = **fixed price**, Product Prices = **pre-specified**,
Fuel Input Costs = unit 1:**\$1.00** unit 2:**\$3.00** unit 3:**\$5.00** 

 Instructions (part 2)
 Update
 Enable
 10 sec. ✔
 Graph
 Names Removed
 Message
 Data

Treatment 1: Entry Decision = no choice, Emissions Allowance Cost = \$3.00, Emissions Allowance Endowment = 2, Capacity Cost = \$0.00, Prices from \$1.00

Emissions Allowance Cost Fuel Input Cost
Production Decision Market Price Farnings Farnings % of Max

Production Decision Market Price Earnings Earnings % of Max.														
arnings	id 1 ***	id 2 ***	id 3 ***	id 4 ***	id 5 ***	id 6 ***	id 7 ***	id 8 ***	id 9 ***	id 10 ***	id 11 ***	id 12 ***	id 13 ***	id 14 ***
fficiency		(\$0.00)												<b>\$77.00</b> (\$0.00)
	<b>\$3.00</b> \$1.00		<b>\$3.00</b> \$1.00	<b>\$3.00</b> \$1.00	<b>\$3.00</b> \$1.00	<b>\$3.00</b> \$1.00	<b>\$3.00</b> \$1.00	<b>\$3.00</b> \$1.00	<b>\$3.00</b> \$1.00	<b>\$3.00</b> \$1.00	<b>\$3.00</b> \$1.00	<b>\$3.00</b> \$1.00	<b>\$3.00</b> \$1.00	<b>\$3.00</b> \$1.00
	sold	sold	sold	sold	sold	sold	sold	sold	sold	sold	sold	sold	sold	sold
														\$3.00 sold
68%	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
														not \$5.50
	\$11.00	\$11.00	\$3.00	\$-1.00	\$11.00	\$9.00	\$6.50	\$10.50	\$1.00	\$3.00	\$3.00	\$-4.50	\$5.50	\$7.00
														93% <b>\$3.00</b>
	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
		sold \$3.00	<b>sold</b> \$3.00	not \$3.00	<b>sold</b> \$3.00	<b>sold</b> \$3.00	not \$3.00	sold \$3.00		sold \$3.00	sold \$3.00	not \$3.00	<b>sold</b> \$3.00	<b>sold</b> \$3.00
	sold	sold	sold	not	not	sold	not	sold	not	sold	not	not	sold	sold
73%														\$5.00 not
	\$6.50	\$5.50	\$6.50	\$8.50	\$1.50	\$1.50	\$2.50	\$2.50	\$8.50	\$6.50	\$1.50	\$8.50	\$4.50	\$7.50
														\$11.00 100%
	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00
	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
	\$3.00	\$3.00	<b>not</b> \$3.00	\$3.00	\$3.00	<b>not</b> \$3.00	<b>not</b> \$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	<b>sold</b> \$3.00
000/	not	not	not	sold	sold	not	not	not	sold	sold	sold	not	sold	sold
88%														\$5.00 not
	\$1.50	\$1.50	\$1.50	\$5.50	\$4.50	\$8.50	\$1.50	\$4.50	\$4.50	\$5.50	\$6.50	\$5.50	\$5.50	\$6.50
	\$3.50 58%	\$3.50 58%	100%	\$4.50 60%	\$5.00 77%	\$6.00 44%	100%	100%	\$5.00 77%	\$7.00 93%	\$9.00 100%	\$7.50 100%	\$7.00 93%	\$9.00 100%
	<b>\$3.00</b>	<b>\$3.00</b>	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	<b>\$3.00</b>	\$3.00	<b>\$3.00</b>	\$3.00
	\$1.00 sold	\$1.00 sold	not	\$1.00 sold	not	sold	sold	\$1.00 sold	sold	\$1.00 sold	\$1.00 sold	not	\$1.00 sold	\$1.00 sold
	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00
82%	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	<b>sold</b> \$5.00
	not	not	sold	not	not	not	not	sold	sold	not	not	not	not	sold \$8.50
	\$3.00	\$9.00	\$6.50	\$5.00	\$5.50	\$7.00	\$7.50	\$4.50	\$-7.50	\$11.00	\$7.00	\$6.00	\$4.50	\$13.50
														100%
		\$3.00 \$1.00		\$3.00 \$1.00	\$3.00 \$1.00		1.0					\$3.00 \$1.00	\$3.00 \$1.00	<b>\$3.00</b> \$1.00
	sold	not	not	sold	not	sold	sold	sold	sold	sold	sold	sold	sold	sold
	sold	not	sold	sold	sold	sold	sold	not	sold	sold	sold	sold	sold	\$3.00 not
85%	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00
	\$4.50	\$3.50	\$7.50	\$6.50	\$2.50	\$2.50	\$7.50	\$3.50		\$8.50	\$7.50	\$6.50	\$7.50	not \$4.50
	\$5.00 77%	\$6.00 100%	\$7.00 64%	\$7.50 83%	\$-3.00 0%	\$-4.50 0%	\$11.00 100%	\$5.50 92%	\$4.50	\$13.50 100%	\$11.00 100%	\$9.00 100%	\$11.00 100%	\$6.50 100%
	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00
	\$1.00 sold	\$1.00 sold	\$1.00 sold	\$1.00 sold	\$1.00 sold	\$1.00 sold	\$1.00	\$1.00 sold	\$1.00 sold	\$1.00	\$1.00	\$1.00 sold	\$1.00 sold	\$1.00 sold
	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00
QQ0/ <sub>0</sub>		not ¢5.00					not ¢5.00	sold		not ¢5.00	not ¢5.00	not ¢5.00		not \$5.00
88%	not	not	sold	not	sold	not	not	not	not	not	not	not	not	not
		\$4.50 \$6.50	\$5.50 \$4.50	\$3.50 \$3.00	\$6.50 \$7.50	\$4.50 \$5.00	\$3.50 \$6.00	\$6.50 \$9.00	\$6.50 \$9.00	\$2.50 \$6.00	\$2.50 \$6.00	\$3.50 \$5.50	\$6.50 \$9.00	\$3.50 \$5.50
	93%	100%	60%	50%	83%	77%	100%	100%	100%	100%	100%	92%	100%	92%
0.407	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00
84%														\$1.00 sold
	68% 73%	### ### ### ### ### ### ### ### #### ####	### *** ficiency \$72.50 \$80.00 (\$0.00) \$3.00 \$1.	### ### ### ### ### ficiency	### *** *** *** *** *** *** *** *** ***	### strain   ***	### ### ### ### ### ### ### ### ### ##	### STATE   ST	### Friciency   \$72.50   \$80.00   \$35.00   \$45.50   \$45.50   \$83.00   \$70.50   \$80.00   \$35.00   \$35.00   \$35.00   \$35.00   \$30.0	Friciency   \$72.50   \$80.00   \$35.00   \$55.00   \$45.00	Friciency   \$72.50   \$80.00   \$35.00   \$55.00   \$45.50   \$29.50   \$83.00   \$70.50   \$48.00   \$79.50   \$48.00   \$1.	Friedrice   \$72.50   \$80.00   \$35.00   \$45.50   \$29.50   \$83.00   \$70.50   \$80.00   \$79.50   \$77.00   \$79.50   \$79.50   \$77.00   \$79.50   \$79.50   \$77.00   \$79.50	reficiency \$7.2.50 \$80.00 \$35.00 \$58.00 \$45.50 \$29.50 \$83.00 \$57.00 \$48.00 \$79.50 \$77.00 \$38.00 \$30.	Trienery 97.50 \$80.00 \$35.00 \$80.00 \$45.50 \$29.50 \$30.00 \$70.00 \$40.00 \$70.00 \$

		\$3.00 not \$5.00 not \$2.50 \$4.50 75%	\$3.00 not \$5.00 not \$2.50 \$6.00 100%	\$3.00 not \$5.00 sold \$3.50 \$1.50 25%	\$3.00 not \$5.00 not \$2.50 \$4.50 75%	\$3.00 sold \$5.00 not \$8.50 \$13.00 96%	\$3.00 not \$5.00 sold \$7.50 \$9.00 82%	\$3.00 sold \$5.00 not \$6.50 \$9.00 100%	\$3.00 not \$5.00 not \$1.50 \$3.50 58%	\$3.00 sold \$5.00 not \$3.50 \$3.00 50%	\$3.00 not \$5.00 not \$1.50 \$6.00 100%	\$3.00 not \$5.00 not \$4.50 \$6.50 100%	\$3.00 sold \$5.00 not \$4.50 \$5.00 77%	\$3.00 not \$5.00 not \$1.50 \$3.50 58%	\$3.00 not \$5.00 not \$2.50 \$4.50 75%
8	81%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$13.50 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$13.50 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 sold \$2.50 \$-1.00 0%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$7.50 \$11.00 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$3.50 \$3.00 50%	\$3.00 \$1.00 not \$3.00 sold \$5.00 sold \$3.50 \$-1.00 0%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$13.50 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$13.50 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$7.50 \$9.50 86%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$4.50 \$6.50 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$13.50 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$7.50 \$9.50 86%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$8.50 \$13.00 96%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$1.50 \$3.50 58%
	Treatmen	<b>t 2:</b> Entry <b>\$3.00</b>	Decision = \$3.00	no choice	, Emissions \$3.00	\$3.00	c Cost = \$3 \$3.00	\$3.00 \$3.00	sions Allowa \$3.00	ance Endov \$3.00	vment = <b>0</b> , <b>\$3.00</b>	, Capacity ( \$3.00	Cost = <b>\$0.</b> 0	<b>90</b> , Prices 1 <b>\$3.00</b>	from <b>\$1.00</b> <b>\$3.00</b>
9	85%	\$1.00 sold \$3.00 sold \$5.00 not \$7.50 \$5.00 100%	\$1.00 not \$3.00 not \$5.00 not \$3.50 \$0.00 100%		\$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$7.50 100%	\$1.00 sold \$3.00 not \$5.00 sold \$4.50 \$-3.00 0%	\$1.00 sold \$3.00 not \$5.00 not \$5.50 \$1.50 100%	\$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$7.50 100%	\$1.00 sold \$3.00 sold \$5.00 not \$5.50 \$1.00 67%	\$1.00 sold \$3.00 sold \$5.00 not \$6.50 \$3.00 100%	\$1.00 not \$3.00 not \$5.00 not \$3.50 \$0.00 100%	\$1.00 not \$3.00 not \$5.00 not \$3.50 \$0.00 100%	\$1.00 not \$3.00 not \$5.00 not \$6.50 \$0.00 0%	\$1.00 sold \$3.00 not \$5.00 not \$4.50 \$0.50 100%	\$1.00 not \$3.00 not \$5.00 not \$2.50 \$0.00 100%
10	75%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$3.50 \$0.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$1.50 \$0.00 100%		\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$7.50 \$5.00 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$2.50 \$-5.00 0%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$2.50 \$-5.00 0%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$7.50 \$5.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$2.50 \$0.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$1.50 \$0.00 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$6.50 \$3.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$1.50 \$0.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 sold \$4.50 \$-3.50 0%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$7.50 \$5.00 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$8.50 \$7.00 93%
11	85%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$4.50 \$0.50 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$4.50 \$0.50 100%		\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$6.50 \$3.00 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$7.50 \$3.50 70%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$8.50 \$7.00 93%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$2.50 \$0.00 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$6.50 \$3.00 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$7.50 \$5.00 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$5.50 \$1.50 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$7.50 \$5.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$1.50 \$0.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$2.50 \$0.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$3.50 \$0.00 100%
12	85%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$2.50 \$0.00 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$7.50 100%		\$3.00 \$1.00 not \$3.00 not \$5.00 not \$1.50 \$0.00 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$7.50 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$3.50 \$-3.00 0%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$5.50 \$1.50 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$7.50 \$5.00 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$5.50 \$1.50 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$4.50 \$0.50 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$6.50 \$3.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 sold \$7.50 \$-0.50 0%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$5.50 \$1.00 67%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$5.50 \$1.50 100%
13	89%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$6.50 \$3.00 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$5.50 \$1.50 100%		\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$4.50 \$0.50 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$3.50 \$-0.50 0%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$1.50 \$-7.00	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$4.50 \$0.50 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$7.50 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$2.50 \$0.00 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$7.50 \$5.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$2.50 \$0.00 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$3.50 \$-0.50 0%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$3.50 \$0.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$1.50 \$0.00 100%
14	88%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$1.50 \$0.00 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$6.50 \$3.00 100%		\$3.00 \$1.00 not \$3.00 not \$5.00 not \$3.50 \$0.00 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$5.50 \$1.00 67%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 not \$6.50 \$3.00 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$1.50 \$0.00 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$4.50 \$0.50 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$7.50 100%	\$3.00 \$1.00 sold \$3.00 sold \$5.00 sold \$8.50 \$7.50 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$4.50 \$0.50 100%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$5.50 \$0.00 0%	\$3.00 \$1.00 not \$3.00 not \$5.00 not \$1.50 \$0.00 100%	\$3.00 \$1.00 sold \$3.00 not \$5.00 not \$4.50 \$0.50 100%

otal																
	Update	***	***	***	***	***	***	***	***	***	***	***	***	***	***	
		100%	100%		100%	100%	70%	100%	100%	100%	100%	100%	0%	83%	83%	
		\$5.50 \$1.50	\$7.50 \$5.00		\$2.50 \$0.00	\$1.50 \$0.00	<b>\$7.50</b> <b>\$3.50</b>	\$3.50 \$0.00	\$1.50 \$0.00	\$3.50 \$0.00	\$1.50 \$0.00	\$5.50 \$1.50	\$2.50 \$-1.50	<b>\$6.50</b> <b>\$2.50</b>	\$6.50 \$2.50	
		not	not		not	not	not	not	not	not	not	not	not	not	not	
10	88%	\$5.00	\$5.00		\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	
16		not	sold		not	not	not	not	not	not	not	not	not	not	not	
		\$3.00	\$3.00		\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	
		sold	sold		not	not	sold	not	not	not	not	sold	sold	sold	sold	
		\$1.00	\$1.00		\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	
	\$3.00	\$3.00		\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00		
	100%	100%		100%	100%	0%	100%	0%	100%	100%	100%	0%	93%	100%		
		\$7.50	\$0.00		\$1.50	\$3.00	\$0.00	\$3.00	\$-0.50	\$0.50	\$0.00	\$7.50	\$0.00	\$7.00	\$5.00	
		\$8.50	\$2.50		\$5.50	\$6.50	\$4.50	\$6.50	\$3.50	\$4.50	\$2.50	\$8.50	\$8.50	\$8.50	\$7.50	
		sold	not		not	not	not	not	not	not	not	sold	not	not	not	
<b>15</b> 88%	88%	\$5.00	\$5.00		\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	\$5.00	
	sold	not		not	sold	not	sold	not	not	not	sold	not	sold	sold		
	\$3.00	\$3.00		\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00		
	sold	not		sold	sold	not	sold	sold	sold	not	sold	not	sold	sold		
	\$1.00	\$1.00		\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00		
	\$3.00	\$3.00		\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00	\$3.00		

total \*\* earnings:

\$72.50 \$80.00 \$35.00 \$58.00 \$45.50 \$29.50 \$83.00 \$70.50 \$48.00 \$79.50 \$77.00 \$38.00 \$74.50 \$77.00

**V***e*con Lab - May 1, 2023