



# The Energy Bridge

Avatar Studio 2024

Canadian Fuels Association Innovation Forum  
October 29, 2024

*Today's ask: would you be willing to trial The Energy Bridge solution at your retail stations?*

# Disclaimer

The ideas presented are notional ideas as part of the Avatar Studio program and in no way represent any other organizations.



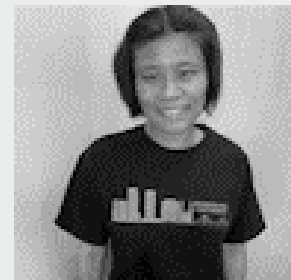
# The Energy Bridge Team



**Arlo Sutherland, P.Eng, MBA**

16 years of blended techno-economics

Chemical Engineer & DAC Specialist



**Dr. Anne Pratoomtong, Ph.D.**

18+ of engineering & research experience

Electrical Eng Ph.D., Data Science M.S.



**Kehl Snyder, P.Eng**

8+ years energy transition consulting

CCS Project Engineer



**Caryn Liberman, P.Eng**

14 years in environmental engineering

Environmental policy and stakeholder engagement

Canada has one of the highest per capita carbon footprints at **~14 tonnes per year CO2**

**Motorized private transport** is the highest component at **~4 tonnes per year CO2**

**How much would you be willing to pay** to offset your emissions **per fill?**

**\$0, \$5?, \$10, \$25, \$50?**



Direct Offsets?

Hybrid?

Plant trees?

Bike?

Public transport?

Green gasoline?

Electric Vehicle?

Bioethanol?



✓ **Trustworthy**
















✓ **Empowerment**


✓ **Community**





# Where could you purchase offsets today?

Business		\$CDN /tonne CO2e	Program Format	Other Features
<b>Air Canada Offsets</b>	 	27	Option at time of ticket purchase	<ul style="list-style-type: none"><li>• Option for book and claim SAF purchase</li></ul>
<b>Karbon X</b>	    	14	Subscription starts at \$9.49/month	<ul style="list-style-type: none"><li>• Educational platform and blog</li><li>• 84% of fees directed to offset projects</li></ul>
<b>Terra Pass</b>	  	23	Subscription starts at \$10.37/month	<ul style="list-style-type: none"><li>• Mixture of nature based CDRs and renewable energy projects</li></ul>
<b>Bullfrog Energy</b>	  	550	Subscription starts at \$32.35/month	<ul style="list-style-type: none"><li>• Green fuels purchased on customers behalf (repurposed waste from food manufacturing)</li></ul>
<b>CDR Developers (i.e., Climeworks)</b>	 	1,500	Subscription starts at \$30.00/month	<ul style="list-style-type: none"><li>• Removals within 6 years of purchase</li><li>• Adopting blended credits (NBS+CDR)</li></ul>

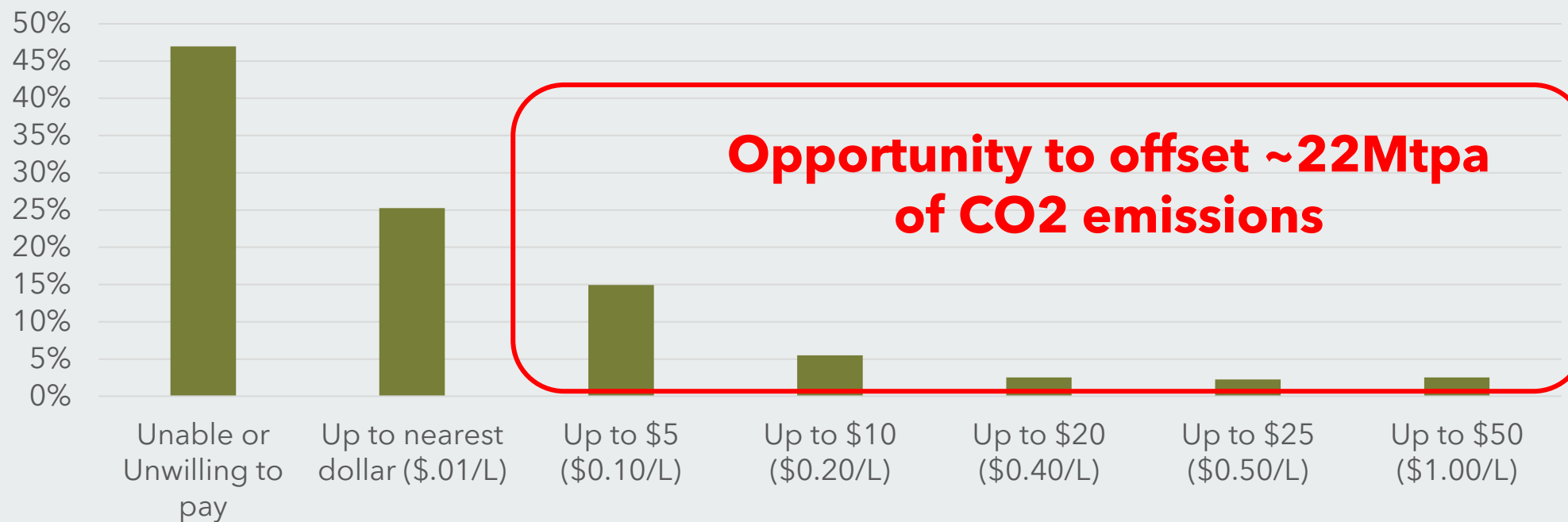
 Nature based CDR  Website  Offers Canadian CDRs  Engineered CDR  Mobile app available



# What is market research telling us?

- Conducted a survey to represent the population of Canada with a 95% confidence interval and 3% margin of error
- **28% of respondents** are willing to pay **\$5 or more per fill** towards offsetting their personal vehicle emissions

Percent population willing to pay for CDRs per 50L fill







# What is market research telling us?

- Likelihood of paying \$5 or more was highest for participants between **18 to 24 years of age (59%)**

Age	Annual Household Income (\$CAD)				
	Less than \$25,000	\$25,000 to \$75,000	\$75,000 to \$125,000	\$125,000 to \$200,000	>\$200,000
18 to 24	18%	47%	68%	50%	33%
25 to 34	20%	34%	42%	19%	75%
35 to 44	23%	32%	37%	52%	29%
45 to 54	11%	23%	29%	20%	<b>Focus Market</b>
55 to 64	22%	19%	28%	27%	
65 or over	11%	18%	30%	26%	



# How will it work?

## Try It Out

### No Account Needed

Consumers with limited knowledge of carbon offsets and sustainability

Occasionally buy eco-friendly products

Hesitant to pay a premium, can be influenced by attractive incentives or discounts

## Hit the “easy button”

### Consistent Monthly Membership

Has a basic understanding of carbon offsets and is looking to learn more

Starting to develop an interest in eco-friendly choices

Open to affordable memberships

May prioritize behavioural changes

## Detail Oriented

### Knowledge

Savvy consumer has a strong understanding of carbon offsets

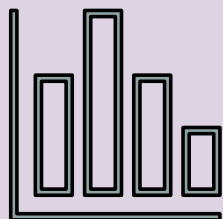
Value transparency and meaningful contributions

Commonly purchase eco-friendly products



# Other app features

## How do I stack up?



Compare gasoline usage trends and offsetting with others in your community, city or country

## Community



Users can connect with friends & build networks of like minded eco-conscious users

## Education



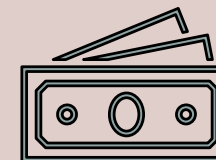
Partner with a podcaster or YouTube star to generate content and share advertising

## Challenges



Offer exciting challenges (i.e., watch educational content, contribute to a specific cause) to earn increased points for a limited period of time

## Incentives

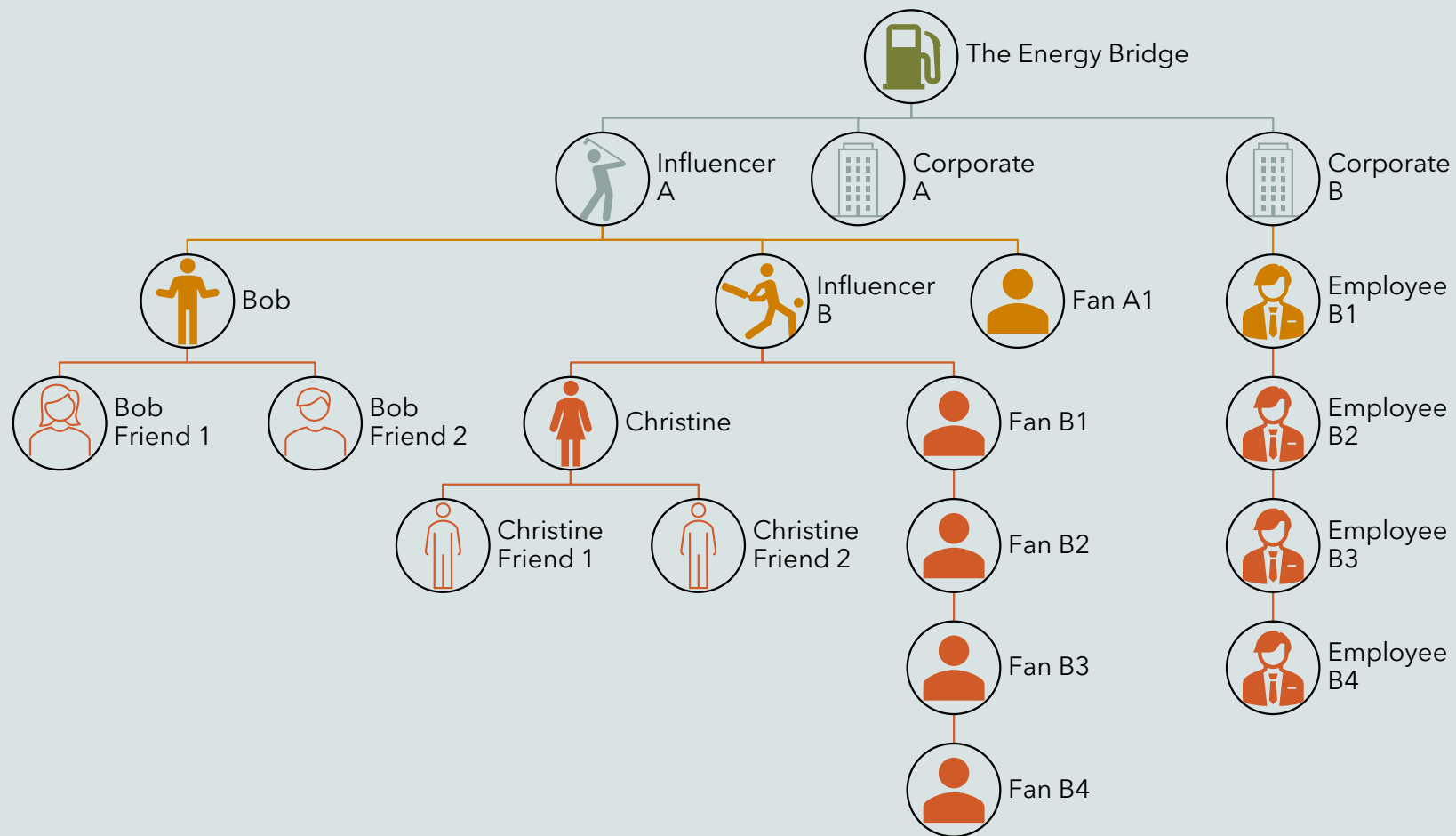


Discounts:

- EV Chargers
- Home Solar
- Uber Green
- Retail Rewards



# Networking incentives to increase adoption & brand loyalty



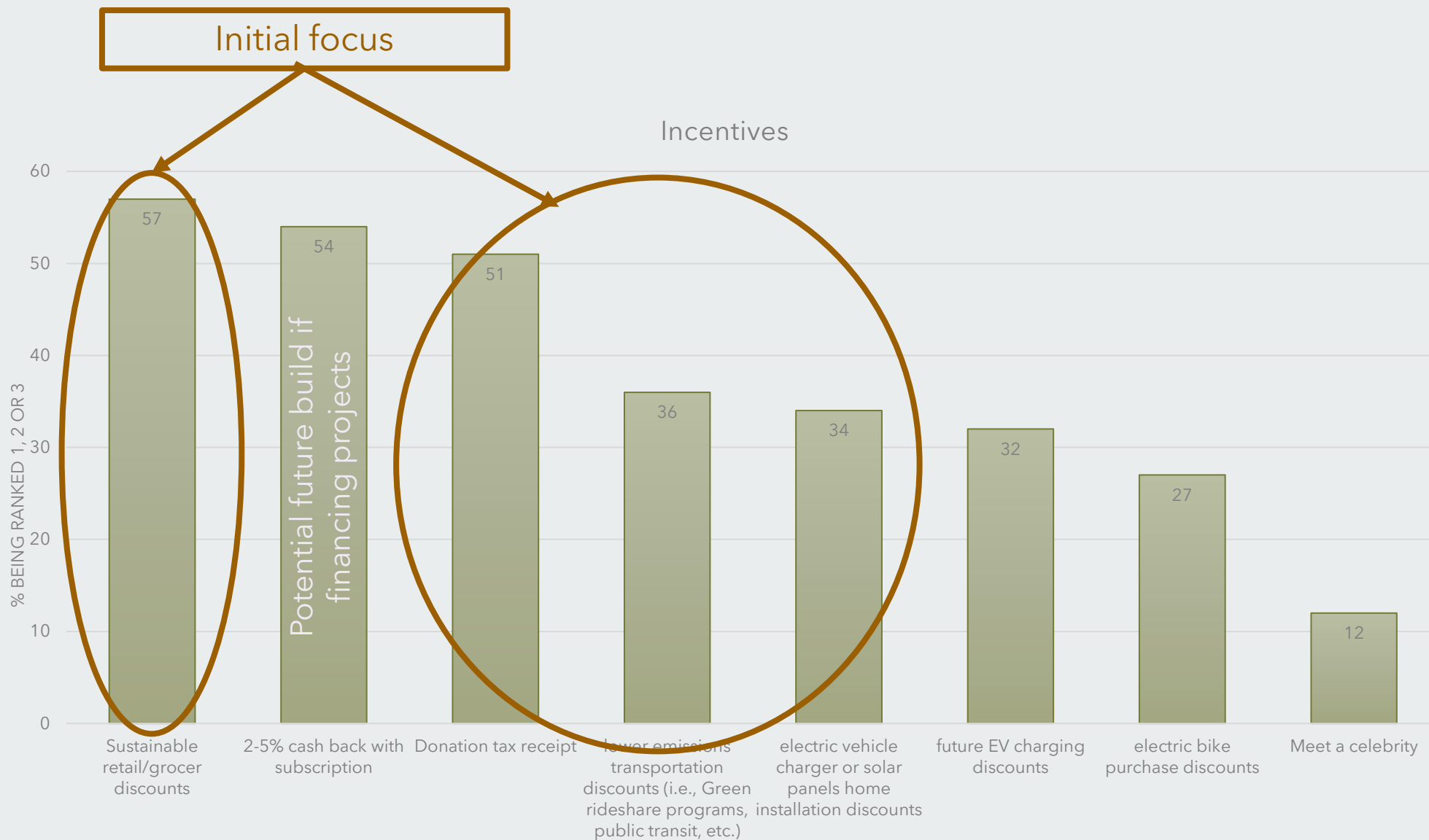
- People feel helpless in the Energy Transition
- What if we had an incentive program to “Own a part of the Energy Transition”?



# Compelling incentives that further emissions reductions

Market survey results:

- Clear consumer preference for discounts with immediate benefits (i.e., groceries, tax return, cash)
- Secondary reducing future costs





# Timeline

**November 2024**

Avatar Demo Day Pitch

**May 2025**

Mobile app soft launch  
Build marketing campaign

**October 2025+**

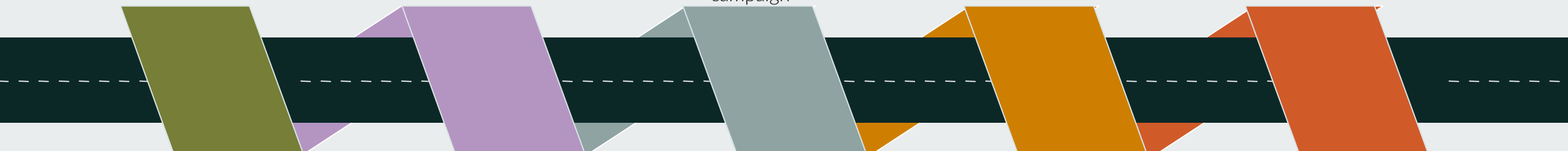
Design and build expanded app features

**December 2024 -  
April 2025**

Mobile app and brand development  
Build incentives program

**September 2025**

Mobile app official launch





## Top 5 Takeaways

1. The Energy Bridge will provide consumers with a fun, accessible and affordable mechanism to offset their gasoline emissions
2. Discounts designed to **incentivize continued participation** in the program and further emissions reductions
3. Initial market research indicates **28% of respondents** are willing to pay **\$5 or more per fill** towards offsetting their personal vehicle emissions
4. With 1% of Canadian participating will result in an annual CO2 reduction by 0.8Mt/year
5. The app is being built now... are you in?