TICA Solar Panel Project Briefing Notes

- The recently completed Forbes Hall project included many design features for energy savings and climate resiliency.

- Included in future plans was the provision to install solar panels to offset hydro purchase requirements.

- The Community Climate Resiliency Group (CCR) has researched and proposed a solar power project which fulfills Thetis Island Community Association's (TICA) longer-term objective to reduce exposure to grid-supplied power.

- The solar power project meets climate resilience goals and also provides an attractive financial return in most expected scenarios.

- After reviewing four proposals obtained by the CCR team, the TICA board selected a design proposed by Ocean Volt.

- The selected design will displace approximately 100% of the grid power used at Forbes Hall with solar-generated power. Future expansion potential also exists.

- With a 2025 installation, and the confirmed $25,000 rebate from BC Hydro, the project has an attractive return on TICA members' investment of 15% and a payback of just over 8 years.

- With more grants (a modelled "best case" 2025 grant/donation assumption of $50,000), returns exceed 50% and payback is in the order of 3 years. Even in an unfavourable or "worst case" scenario the project pays itself out in 14 years and generates a substantial value creation to TICA over the 25+ year modelled life of the installation.

- Pledges and donations are sought by July 31, 2025, and a decision on a late summer/fall 2025 installation will be made in the coming week, taking into consideration the financial support of this project by Thetis Islanders.

- Risks to the project are minimal. The technology is proven, there is a 25-year production guarantee from the vendor, and maintenance is minimal (and can be competed by volunteers annually). While a broad range of financial returns are possible, even modeled scenarios that had unfavourable assumptions generate value for TICA members.

- Once completed, the current project will be the launch pad for future solar power capacity expansion and other energy conservation initiatives.

Financial Range of Outcomes for a 2025 Installation:

2025 Installation and Startup			
Key Assumption	**Base Case**	**Favourable ("Best") Case**	**Unfavourable ("Worst") Case**
BC Hydro annual rate increases	3.00%	3.90%	2.0%
Project capital cost	No contingency used	No contingency used	10% contingency used
BC Hydro Grant	$25,000	$25,000	$25,000
Other grants and pledges	$0	$25,000	$0
Energy displacement	per OV proposal	per OV proposal	per OV proposal
Annual operating cost increases	Some insurance	Some insurance	Some insurance, tree canopy
Bridge loan terms	0% for 1 year	0% for 1 year	2% for 14 years
Financial Indicators	**Base Case**	**Favourable ("Best") Case**	**Unfavourable ("Worst") Case**
Payback (Years)	8+	3+	14+
Return on Investment (Annual)	15%	50%	9%
Internal Rate of Return (Annual)	12%	33%	6%
Net Present Value	$ 69,166	$ 107,314	$ 27,537

A case was run with without funding from grants. Assumptions were as follows:

- 2% BC Hydro annual rate increases
- No spend of the contingency (hold firmly to project budget)
- No pledges (for model purposes)
- A bridge loan given at no interest until cumulative cashflow is neutral
- Minor allowance for insurance increase and some tree work

Results: 16+ year payback and ROI of 7% (IRR of 4% and a small net present value of about $19k)

If we assume the same, but with a higher annual BC Hydro rate increase of 3.9%…

Results: 13+ year payback and ROI of 9% (IRR of 6% and a NPV of about $46k).

Note: "Worst" case scenario showing a Hydro Rate increase of 2% which may look favourable to the general public but would lessen the ROI for TICA's Solar Panel Project.

	2025 Start Base Scenario		2025 Start Favourable ("Best")	2025 Start Unfavourable ("Worst")		2026 Start Favourable ("Best")	2026 Start Unfavourable ("Worst")
BC Hydro Rate Increases	3.0%		3.9%	2.0%		3.9%	2.0%
Discount Rate	2.0%		2.0%	2.0%		2.0%	2.0%
Inflation Rate	2.0%		2.0%	2.0%		2.0%	2.0%
Proposal	$ 63,211		$ 63,211	$ 63,211		$ 63,211	$ 63,211
Other, Contingency				$ 6,321		$ -	$ 6,321
Total Project Cost	63,211		63,211	69,532		63,211	69,532
Grant 1 - BC Hydro	$ 25,000		$ 25,000	$ 25,000		$ 25,000	$ 25,000
Grant 2	$ -		$ 10,000	$ -		$ 31,606	$ -
Grant 3	$ -		$ -	$ -		$ -	$ -
Pledges	$ -		$ 15,000	$ -		$ 6,606	$ -
Total	$ 25,000		$ 50,000	$ 25,000		$ 63,211	$ 25,000
Net TICA Investment	$ 38,211		$ 13,211	$ 44,532		$ -	$ 44,532
Cumulative Cost Savings:							
BC Hydro Consumption	$ 156,755		$ 176,663	$ 137,514		$ 174,513	$ 135,368
Cumulative Cost Increases:							
Insurance	$ 13,068		$ 13,068	$ 13,068		$ 13,068	$ 13,068
Cleaning, Maintenance, Canopy	$ -		$ -	$ 16,335		$ -	$ 16,335
Other?	$ -		$ -	$ -		$ -	$ -
Interest on Loan	$ -		$ -	$ 11,578		$ -	$ 13,360
Net Savings	$ 143,687		$ 163,594	$ 96,532		$ 161,444	$ 92,604
Net Cash Flow	$ 105,476		$ 150,383	$ 52,000		$ 161,444	$ 48,072
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Simple Payback Years	8+		3+	14+		Instantaneous	15+
ROI	15.0%		49.5%	8.7%		N/A - Immediate	0
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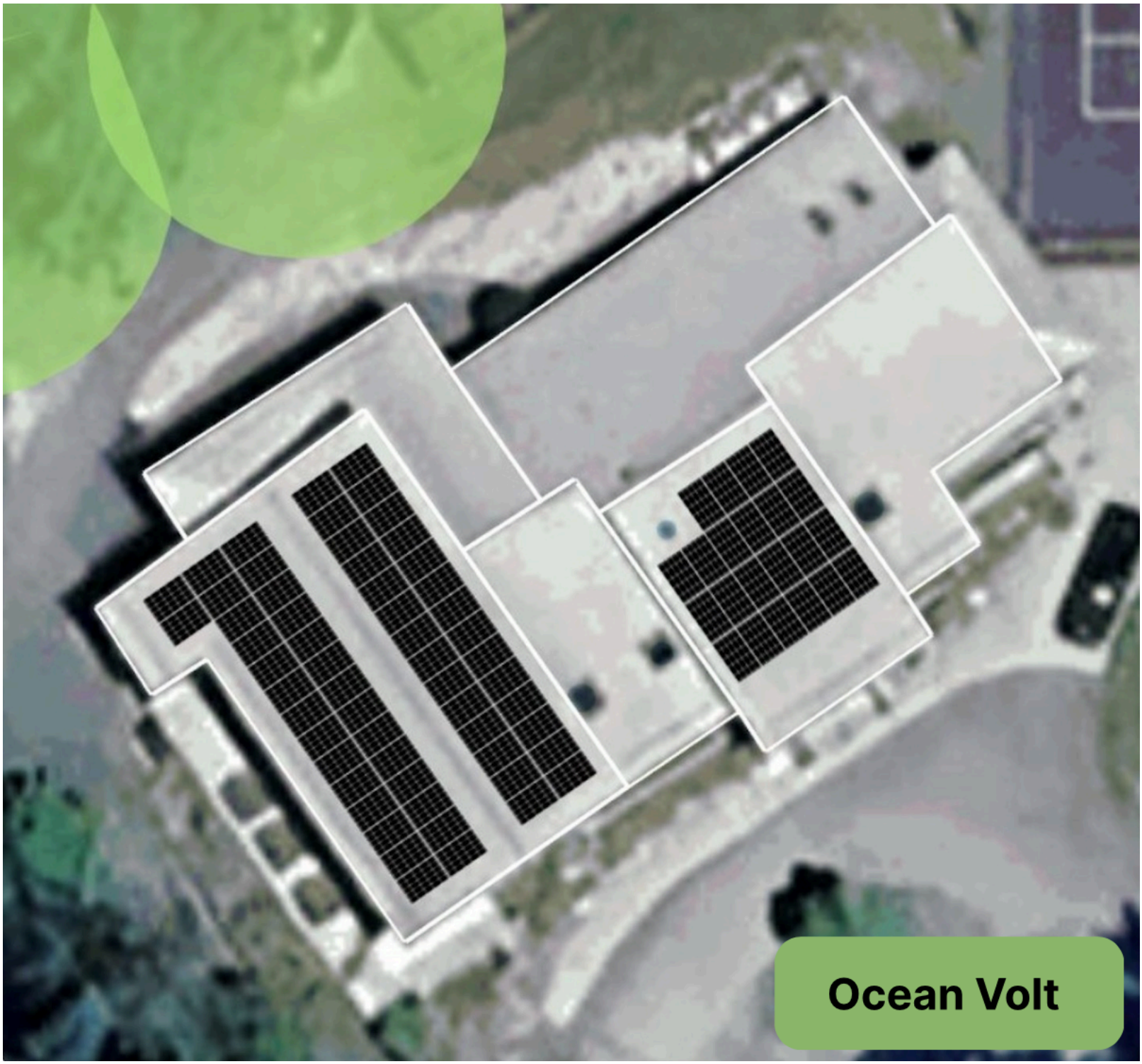
IRR	12.0%		33.5%	5.9%		N/A - Immediate	0
NPV	$ 69,166		$ 107,314	$ 27,537		$ 120,564	$ 25,519


Ocean Volt