## SYNCRIS

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Biology, Society and Environment at University of Minnesota

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Computer Science, Economics at St Olaf College



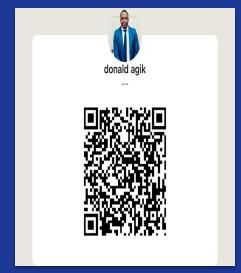
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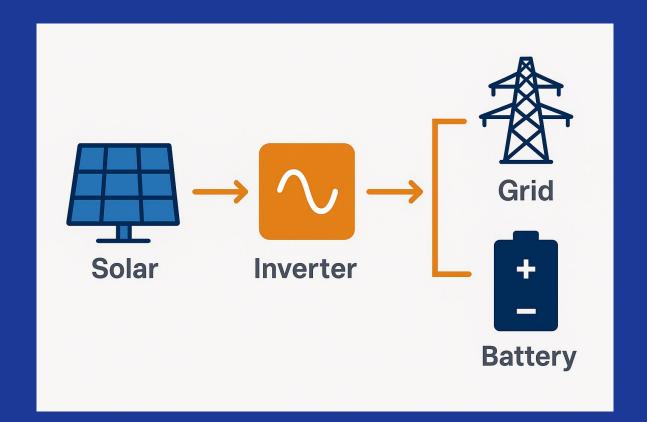
#### **Donald Agik**

Data Science, CyberSecurity at Metro State University





#### What is an inverter?



### Pain Points in the Inverter Industry

- Inverter Inefficiency = Lost Power
  - Most inverters waste 5–8% of energy
- Inverter Failures = Downtime & Cost
  - Frequent failure point in solar arrays
- Clipping from Oversized Arrays
  - Oversized systems = energy lost during peak sun
- Vendor Risk = Uncertain Future
  - Fewer inverter suppliers = fragile supply chain



#### The Tech – SYNCRIS Inverter Innovation

- SYNCRIS Inverters
  - Advanced inverter technology built for ultra-high efficiency and extreme reliability – ideal for edge-of-grid and distributed energy applications

- Efficiency & Flexibility
  - Over 98% power conversion
- Edge-of-Grid Ready
  - Works in remote or unstable grid areas
- Reliability & Intelligence
  - Remote monitoring = visibility where utilities need it most



**Competitive Analysis – What SYNCRIS Offers Differently** 

- 1. Speed & Performance
- 2. Hardware Advantage
- 3. Local & International Applications



## **Challenges & Issues Encountered**

1. Low engagement and non-responses from initial outreach

2. SYNCRIS perceived as "solution looking for a problem"

3. Inconsistent market framing

4. Limited brand visibility and recognition



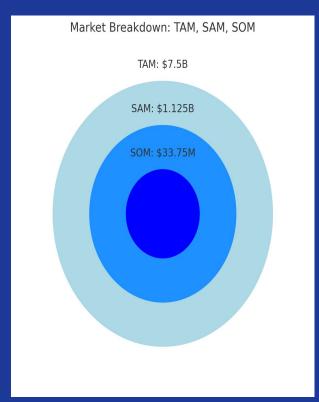
## **Outreach Strategy & Execution**

- Targeted Segments of Renewables
- Performed Initial Outreach
- Tools Used-Email, LinkedIn, cold calls
- Challenge: Low response = unclear market need



## Market Research & Findings

- 1. **Total Addressable Market (TAM):** \$7.5B (Co-ops, Installers, Manufacturers)
- Serviceable Available Market (SAM): \$1.125B in the Midwest
- 3. **Serviceable Obtainable Market (SOM):** Approximately \$33.75M targeted for Year 1
- 4. Key growth drivers : grid stability, renewable energy adoption, and decentralized power.



**Outreach Summary** 

Met with Trane Building Automation (<u>Trane</u> <u>DER & Resilience</u>) and US Solar

Focus: Distributed Energy Resources (DERs) & energy resilience in C&I infrastructure

Expressed interest in SYNCRIS as a high-speed, grid-forming inverter solution

Trane is open to a site visit/demonstration in August(Between August 4th-8th)





## Key Takeaways from Trane Meeting

Trane installs solar systems, but requires advanced inverters for full integration

They **partner** with utilities for distributed energy resource compliance

#### Need for:

- Grid-forming inverters with fast response time
- Simplified grid waveform user-friendly, plug-and-play style

**Interest in SYNCRIS technology** for DER resilience enhancement





## Recommendations for SYNCRIS

- Refine Market Positioning: as solving existing grid-edge problems.
- Leverage on Live demonstrations
- Enhance Reseller Network: In clean-energy portfolios and regional credibility
- Focus on Resiliency Messaging



#### **Alternative Solutions & Communication Strategy**

- Social Media Strategy: (LinkedIn, X, YouTube Shorts)
- Educational Content: Blogs
- Demonstration Events: Proposals for collaboration with St. Thomas Microgrid Lab, etc.



# THANK YOU!! QUESTIONS?