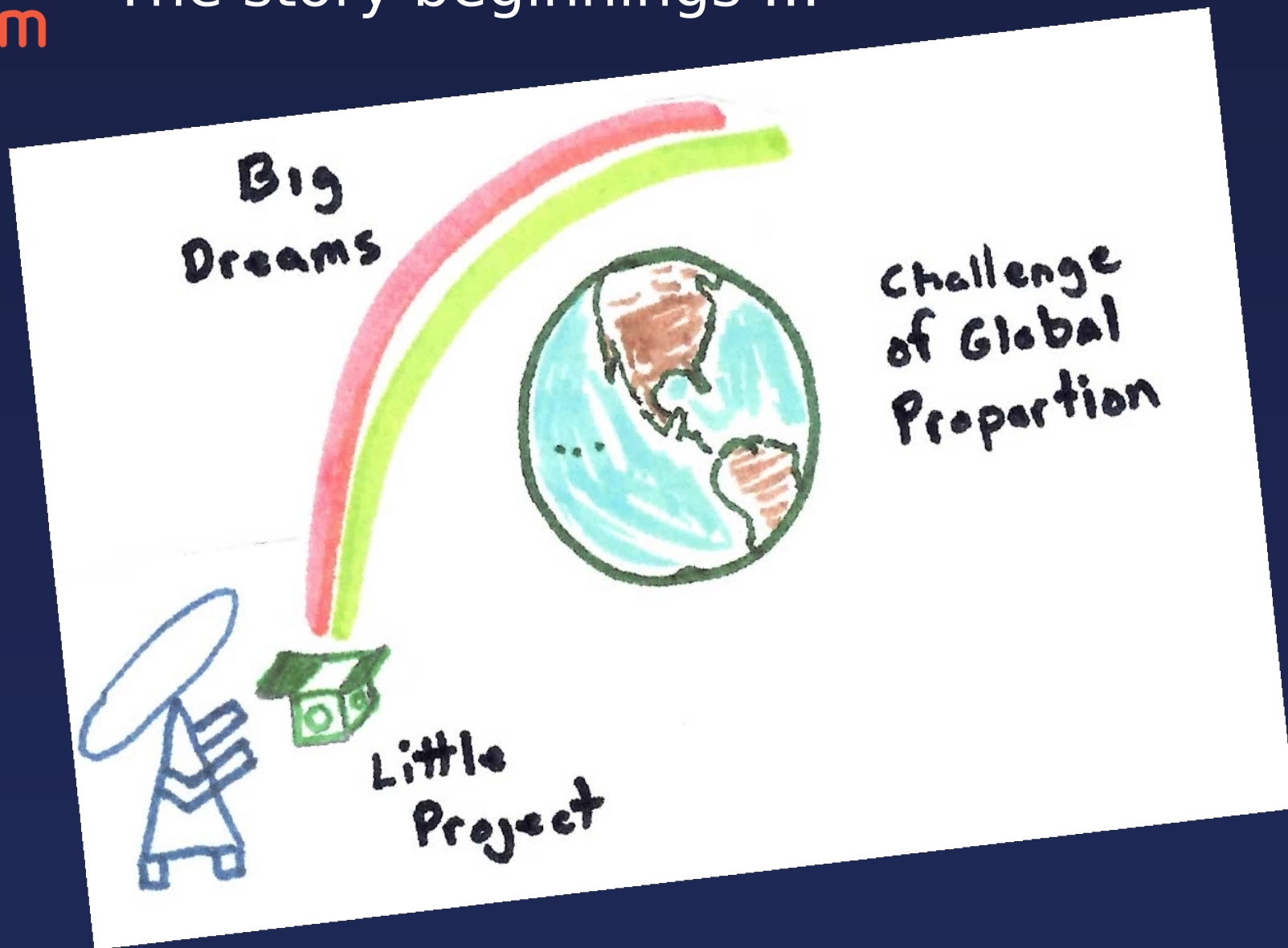


# A Microgrid Platform for the Future

John S. Camilleri  
EVP of Product Development  
Green Energy Corp  
June 29, 2012



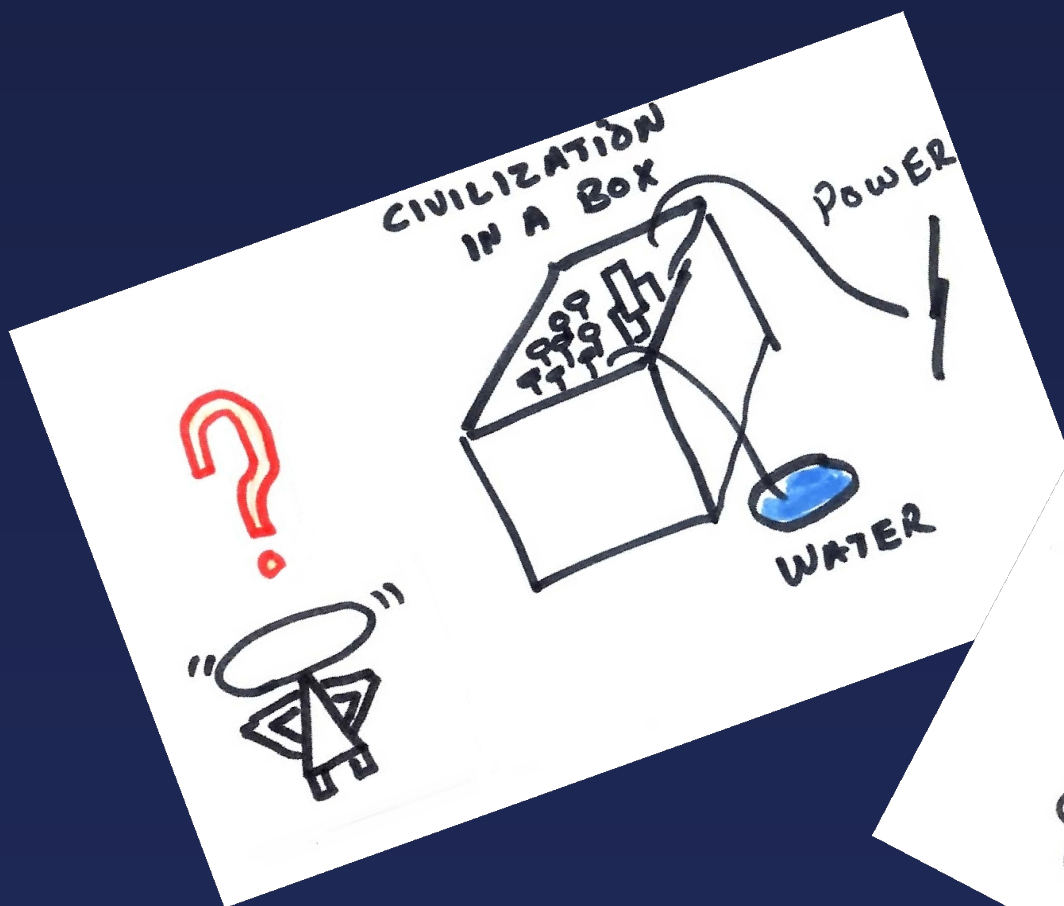
# The story beginnings ...



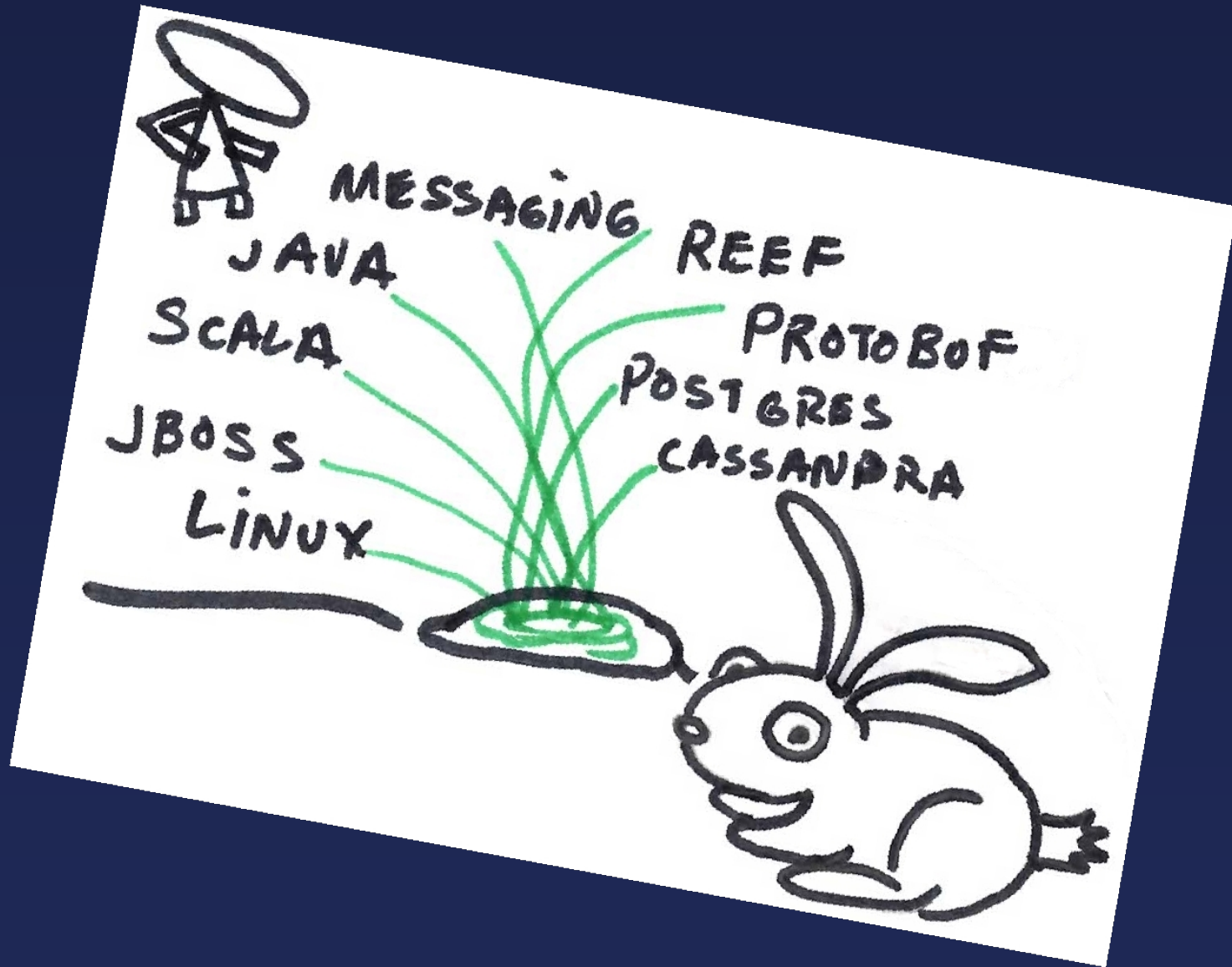
Wouldn't it be cool !!



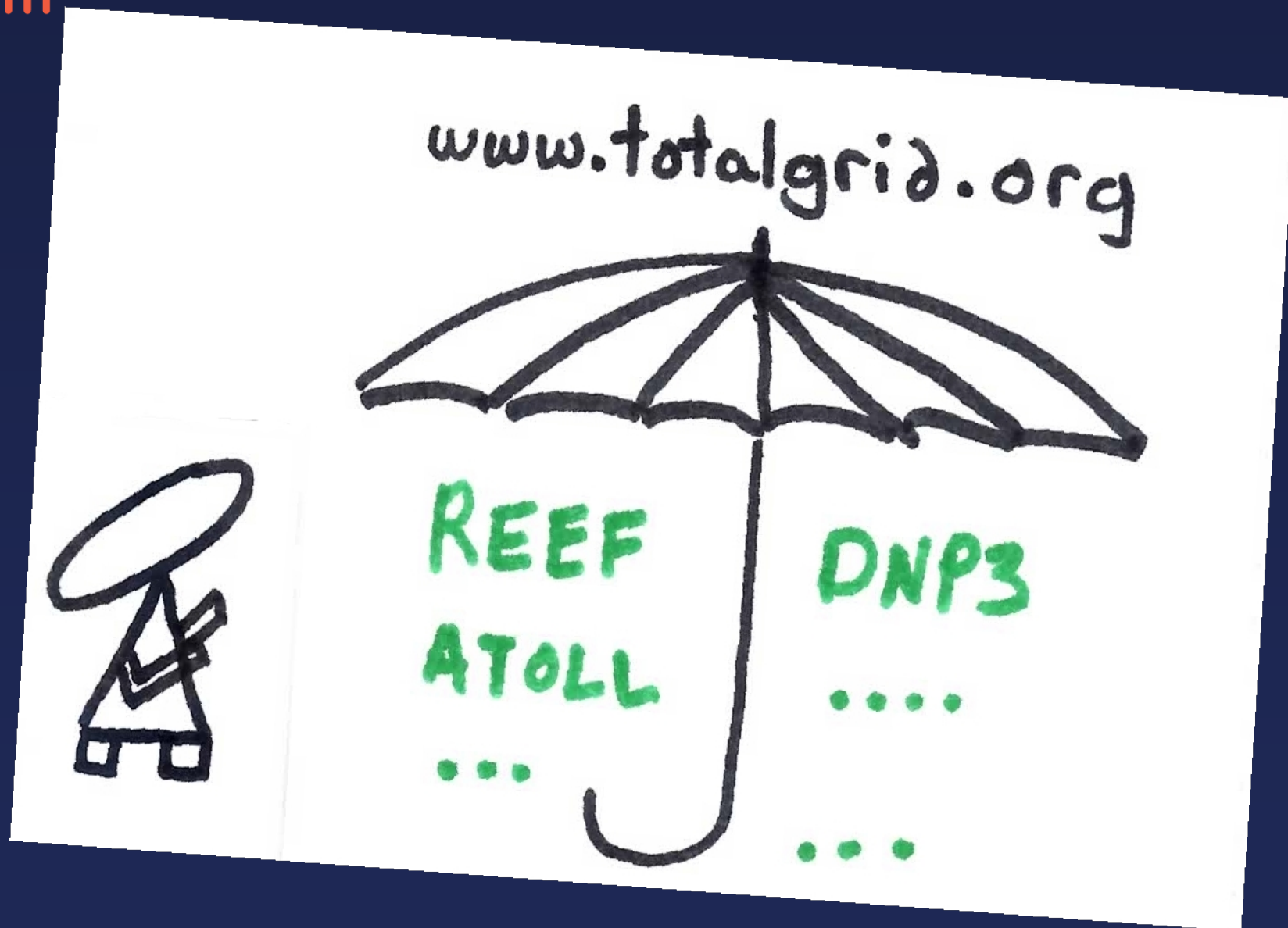
# What is a MICROGRID?



# Technology is a wondrous “Rabbit Hole”



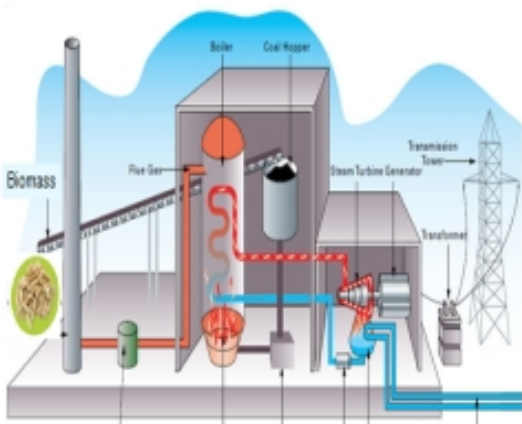
But we need a community ...



Are you getting the picture?



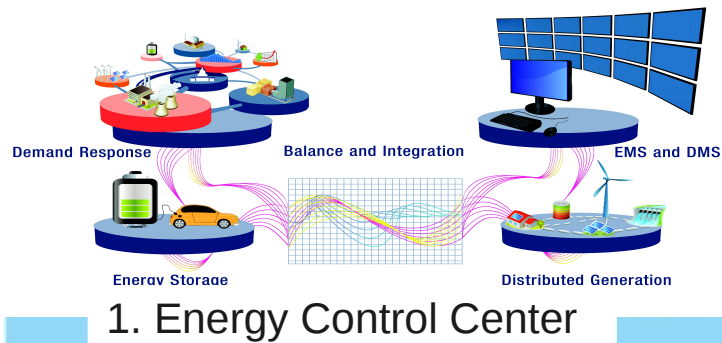
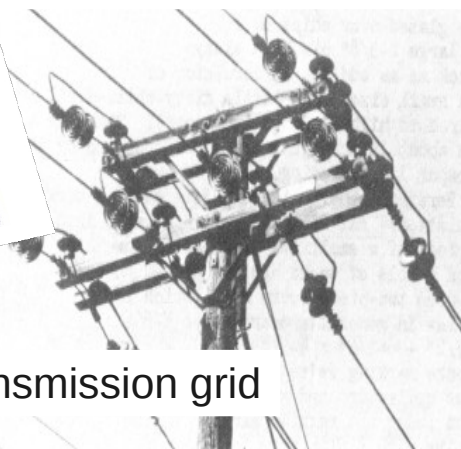
# Haiti – Infrastructure Build Out



4. Waste to Energy plant



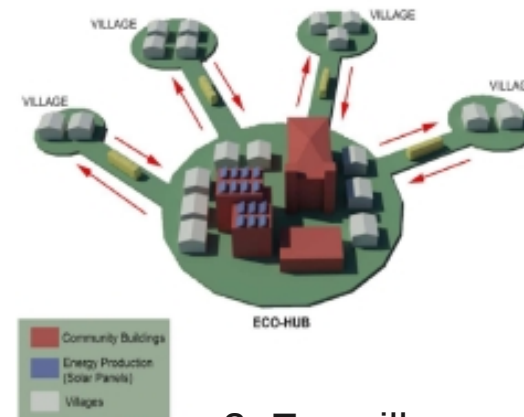
5. Transmission grid



1. Energy Control Center



6. Education and Training



2. Eco-villages



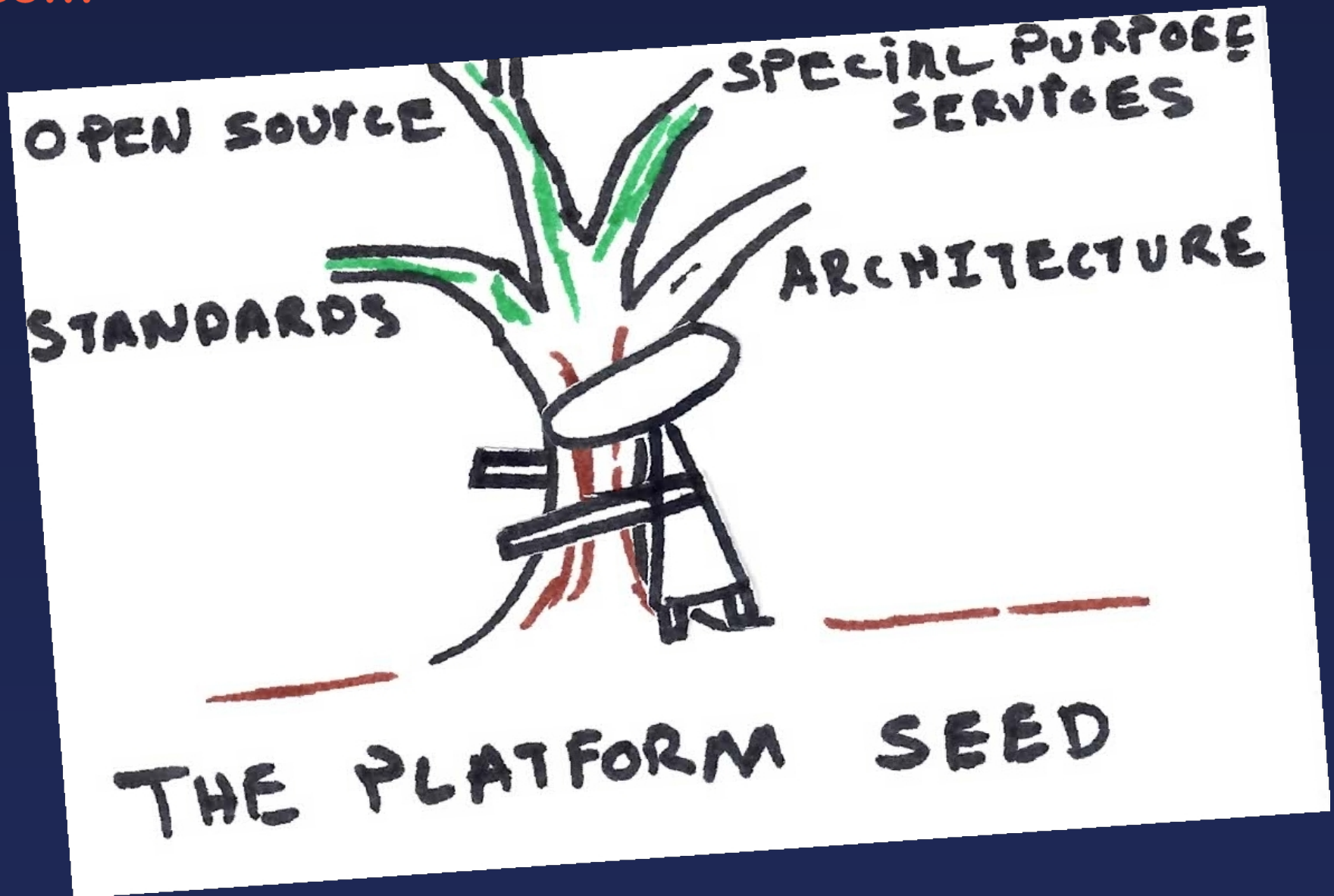
3. Hydro Retrofit

Source: GEM Institute





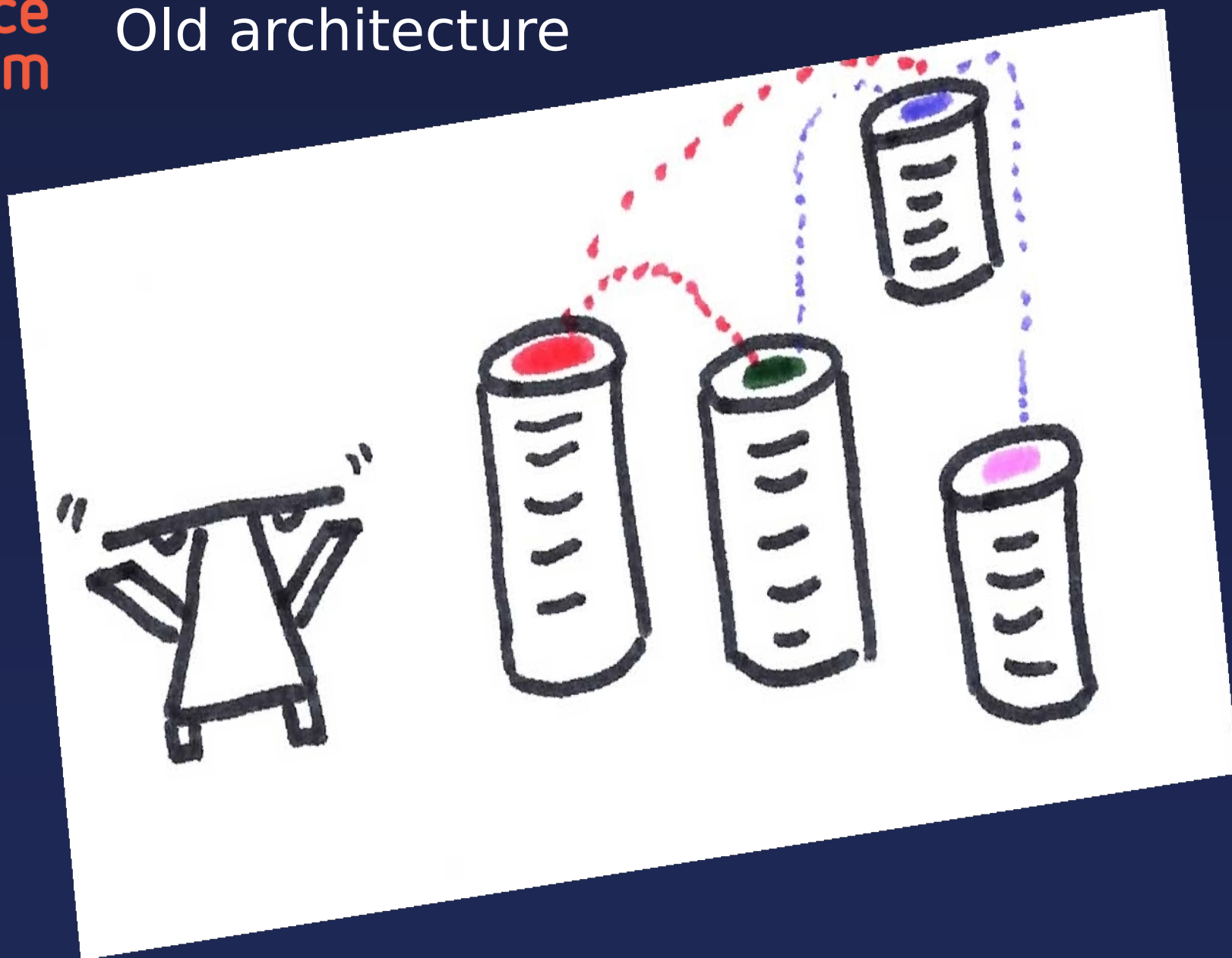
# Platform "The Seed"



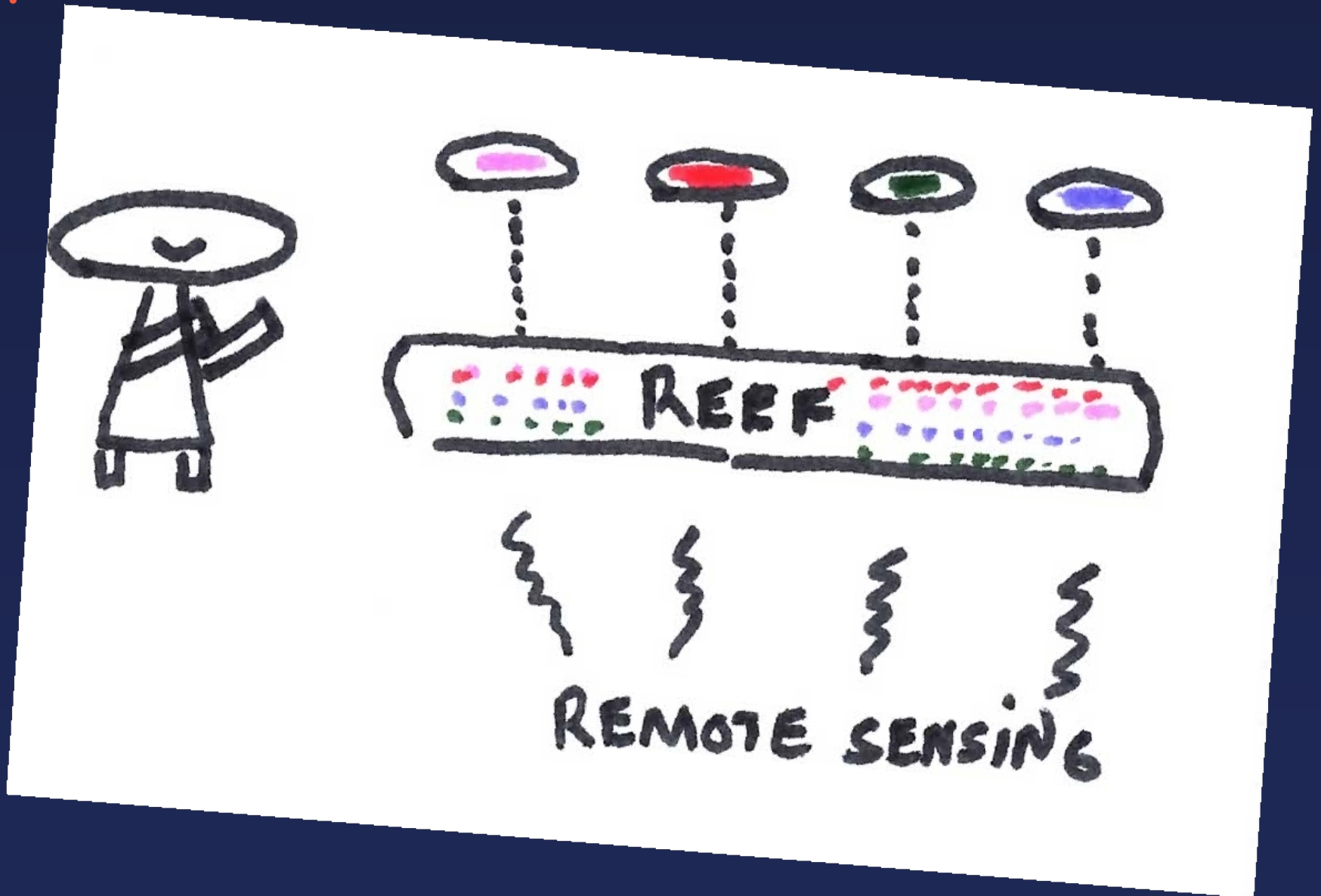
# The core project "Reef"



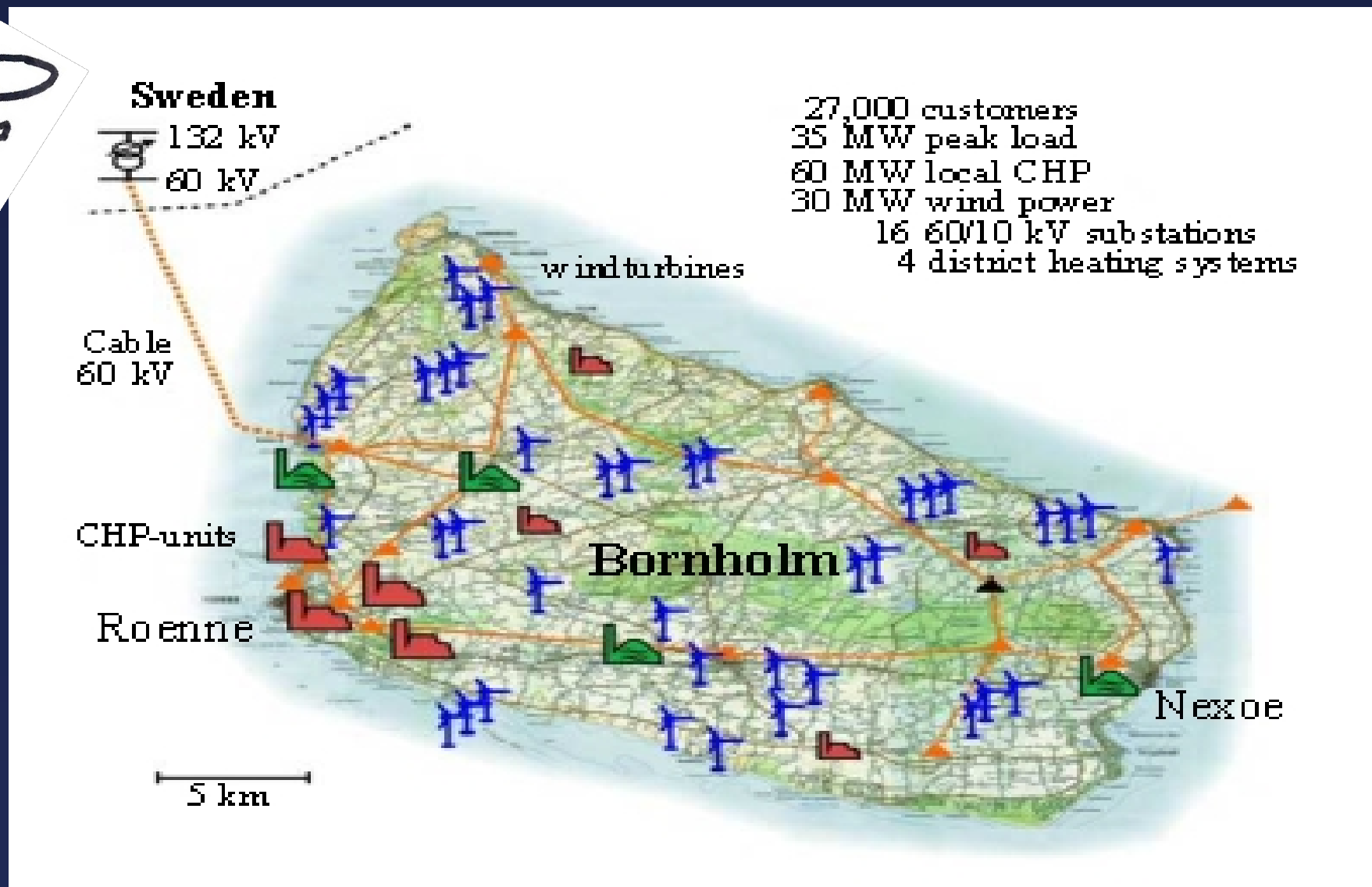
# Old architecture



# New architecture



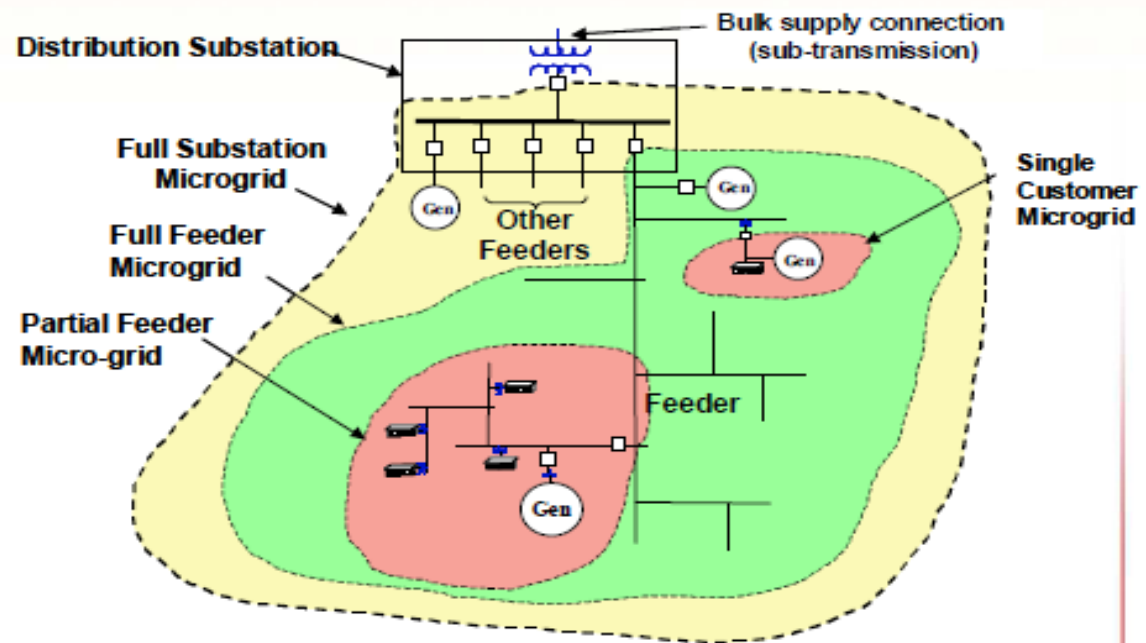
# Big Picture Again #1



# Big Picture Again #2

## Use Renewable and Distributed Generation to Support DoD Microgrids and the Smart Grid

- Small combustion and  $\mu$ -turbines
- Fuel cells
- IC engines
- Small hydro and wind
- Solar electric and solar thermal
- Energy storage (batteries, flywheels,...)
- Plug in hybrid vehicles
- Small nuclear power

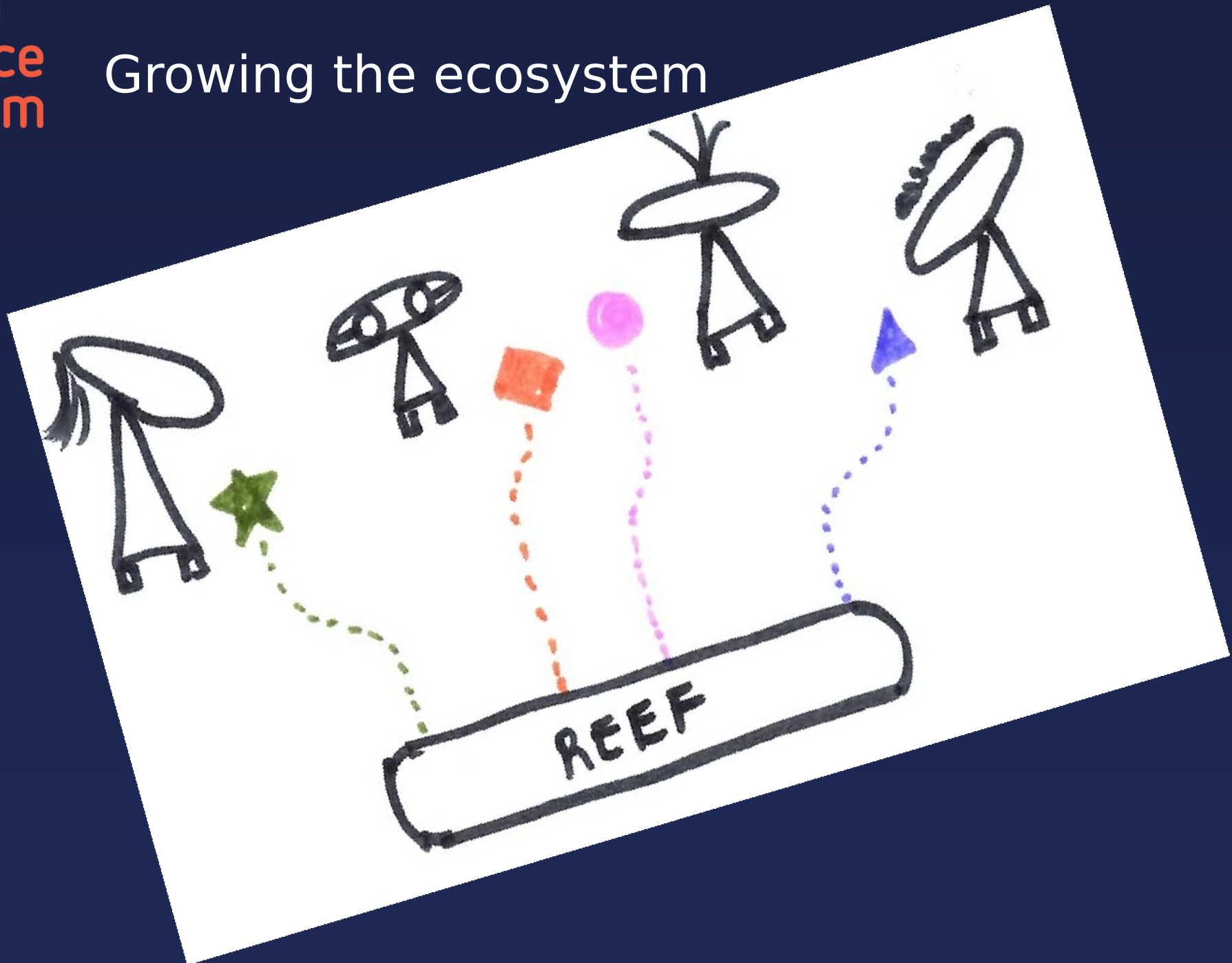


Ref. EPRI

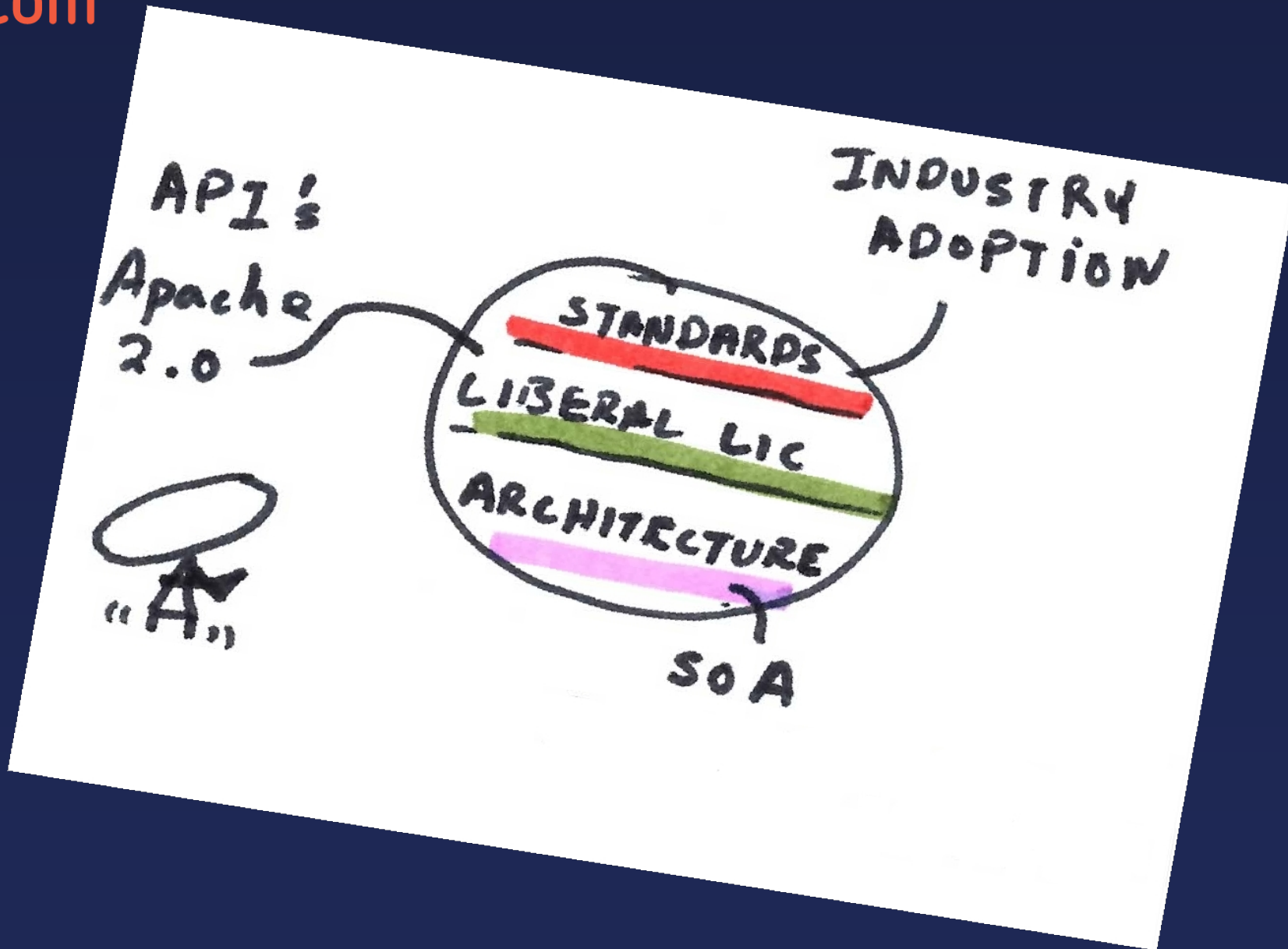
Residential	Less than 10-kW, single-phase
Small Commercial	From 10-kW to 50-kW, typically three phase
Commercial	Greater than 50-kW up to 10MW



# Growing the ecosystem

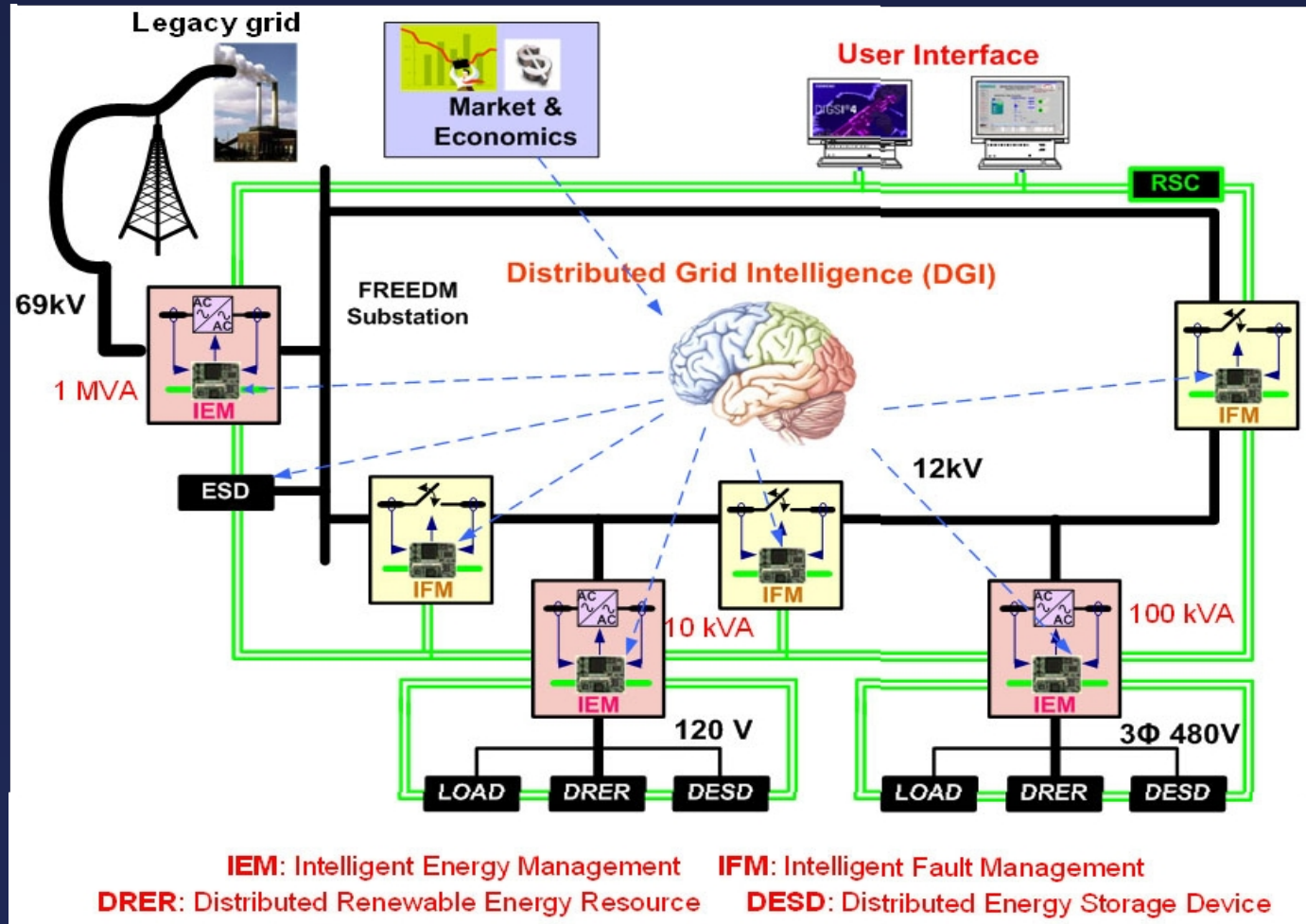


# Business enablers





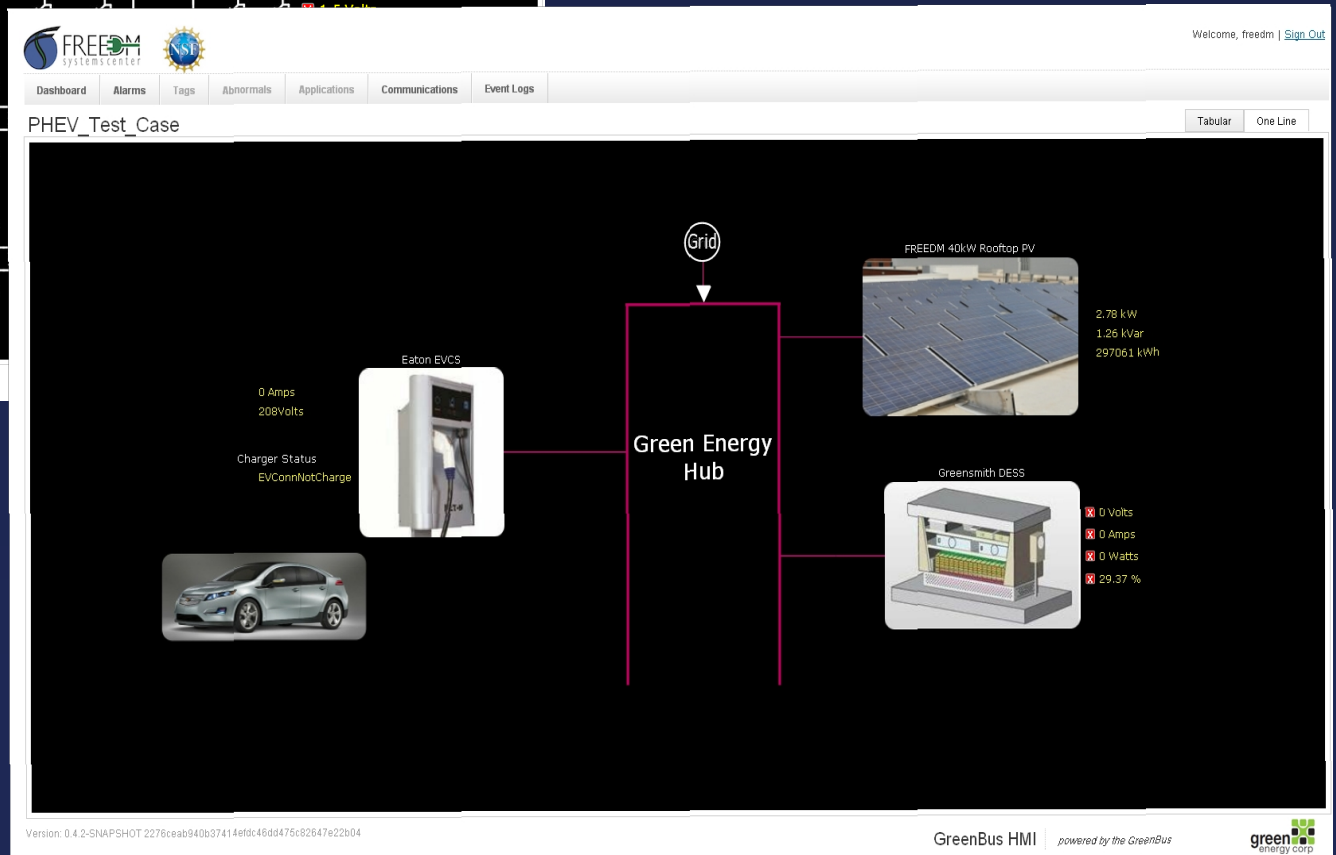
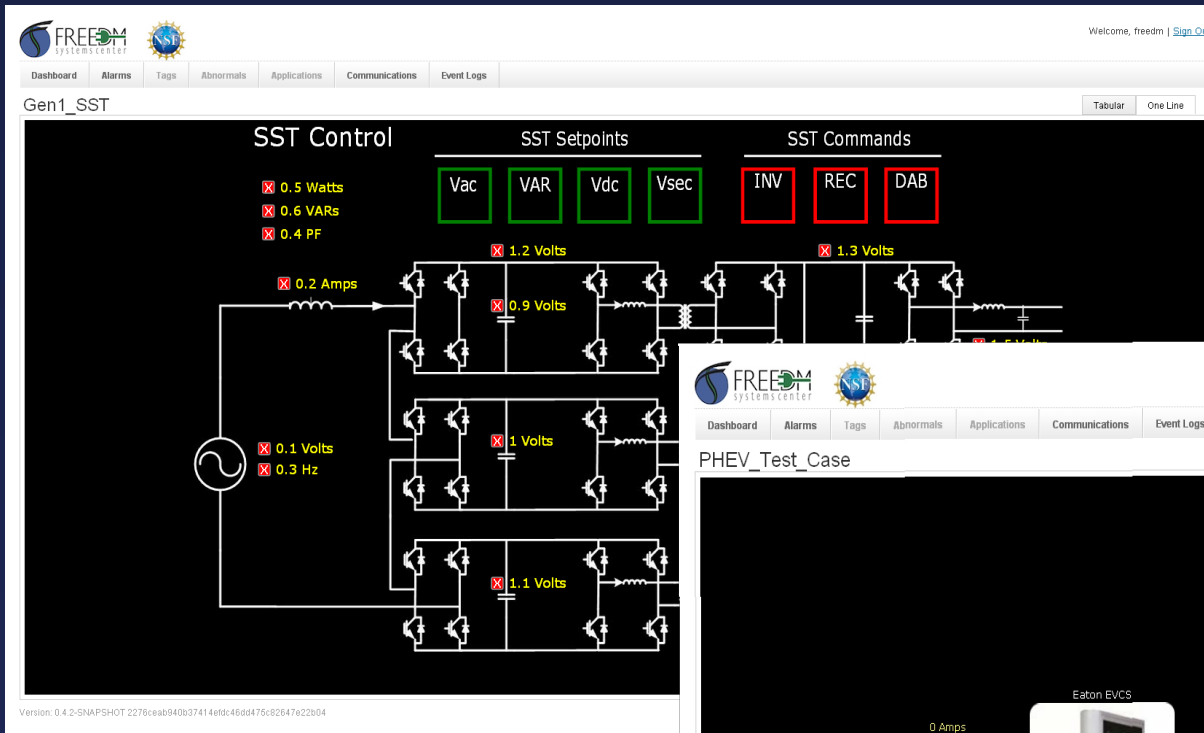
# A cool microgrid project



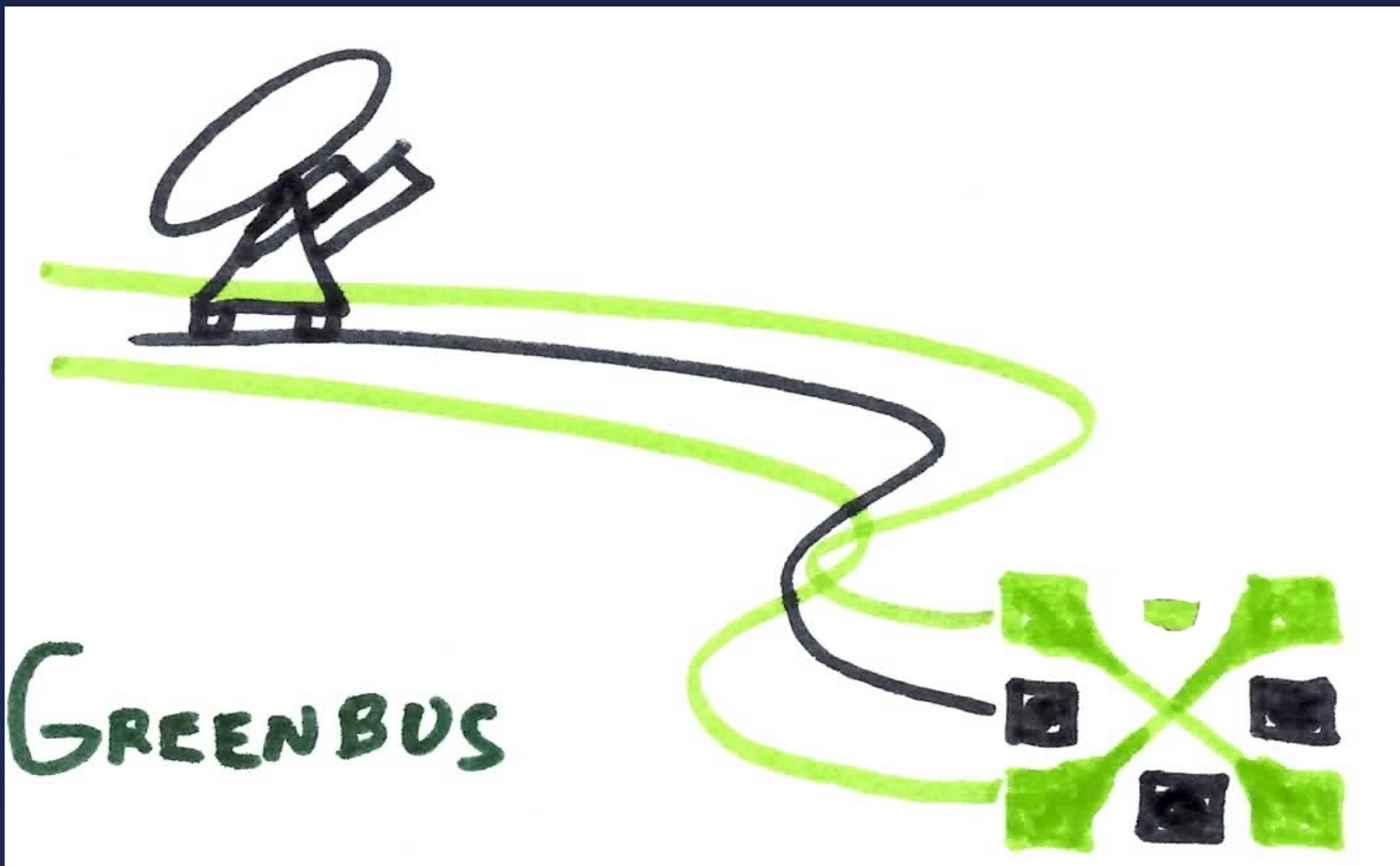
Source: FREEDM System



# A cool microgrid project

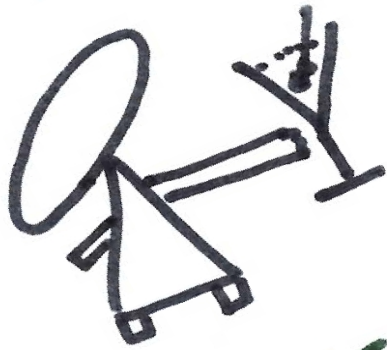


# Ride the GreenBus



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Thank you for your attention ;)

