2ndLife Batteries®

Making Power Projects “Pencil Out”

for Small & Medium-Sized Businesses

2ndLife Batteries™ AGM Lead-Acid!!

- 4 batteries - 48V 190 AH - 9.12 KWH
- 16 batteries - 36.48 KWH
- Excellent Results
- Fire Risk - greatly reduced
- Easy inverter configuration
- Still cheaper than Li-ion ($85/kwh)

3 Year Limited Warranty

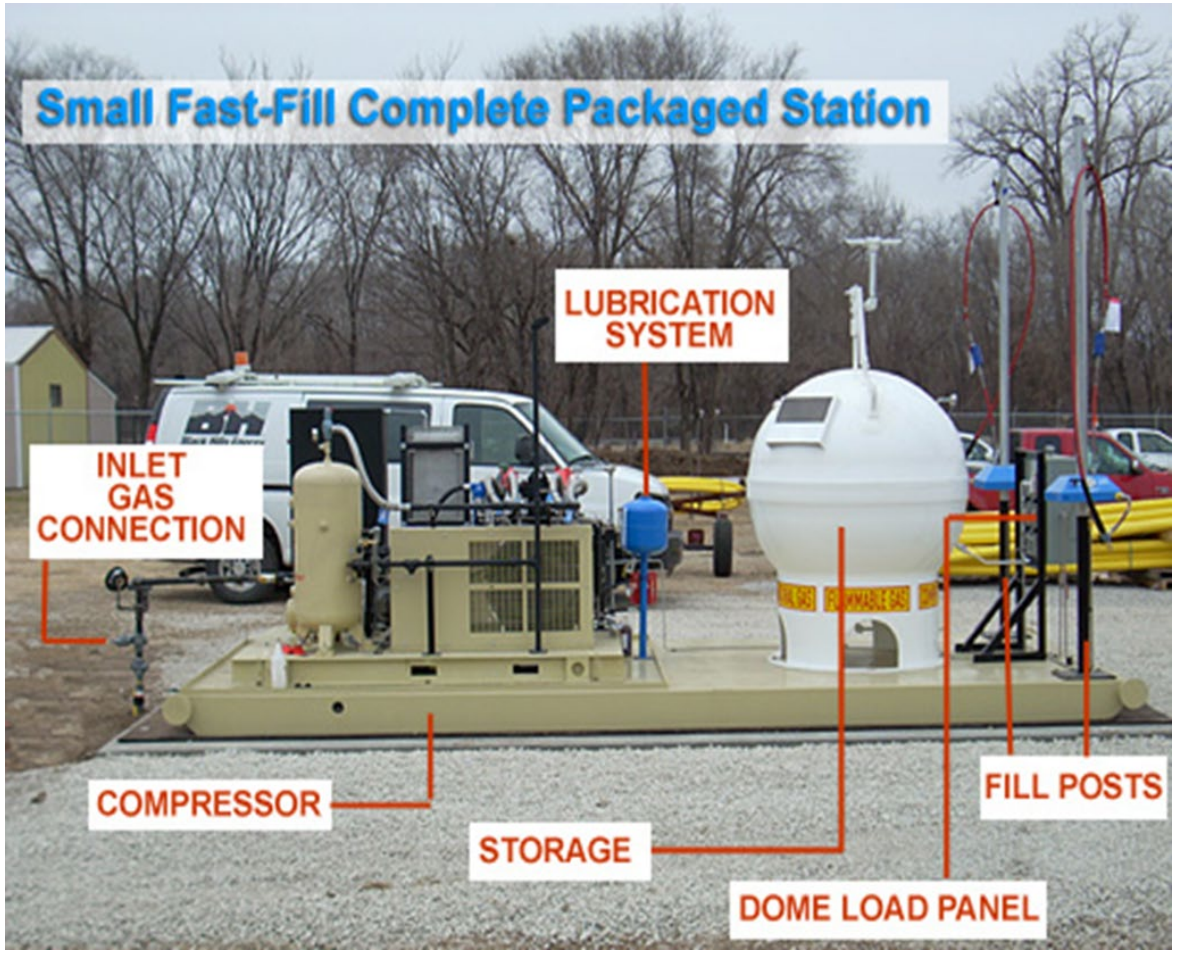
- Backup batteries have after 5 years
- They are very little cycled
- They 98-100% Residual Capacity
- 3 years+ in solar applications
- 100% recyclable with value paid
- 2023 - We have Thousands to be sold
- We are *LOOKING FOR CUSTOMERS*

Target Market with High Demand Power Customers

Compressed Natural Gas Fueling Stations

CNG Compressors - 145 to 290KW

- Natural Gas has to compressed to 3600 PSI
- This takes a lot of burst of Power
- $30,000 in Demand Charge at 10.26/KW per year



Our Story: Less is More - Lithium-Ion

- We discovered that covering 100% had poor ROI - 6.88 Years
- Our optimization paradigm had made the difference in our software named Jeeves™.
- **We need only to cover ~50% to ~75% the demand charges not 100% to meet the ROI goal!**

Our Story - IRA to the Rescue!

- Second-life battery technology
  - was not mature enough to lower cost safely
  - UL Certification was costly for a startup
  - new batteries were too expensive.
- **Fast forward to Aug 2022, and Inflation Reduction Act (IRA) 30% Input Tax Credits (ITC) - with NEW batteries**
- **ROI now 4.21 Years from 6.88 years**

Jeeves™ ROI - IRA ITC at 30%

Battery System Components	Cost Breakdown (budgetary)	Total System Cost	Demand Charge $/kW	Demand Savings [$/month]	Straight Payback [years]
Batteries (incl racking)	$ 19,776.19	$ 64,384.05	$ 10.26	$1,275.43	4.21
Power Electronics	$ 14,000.00				
Enclosure	$ 15,750.00				
Install/Comm	$ 14,857.86				

Annual Demand Charge (unshaved)	$ 35,097.33
Annual Demand Charge (peak-shaved)	$19,792.14
ANNUAL DEMAND CHARGE SAVINGS	**$ 15,305.18**

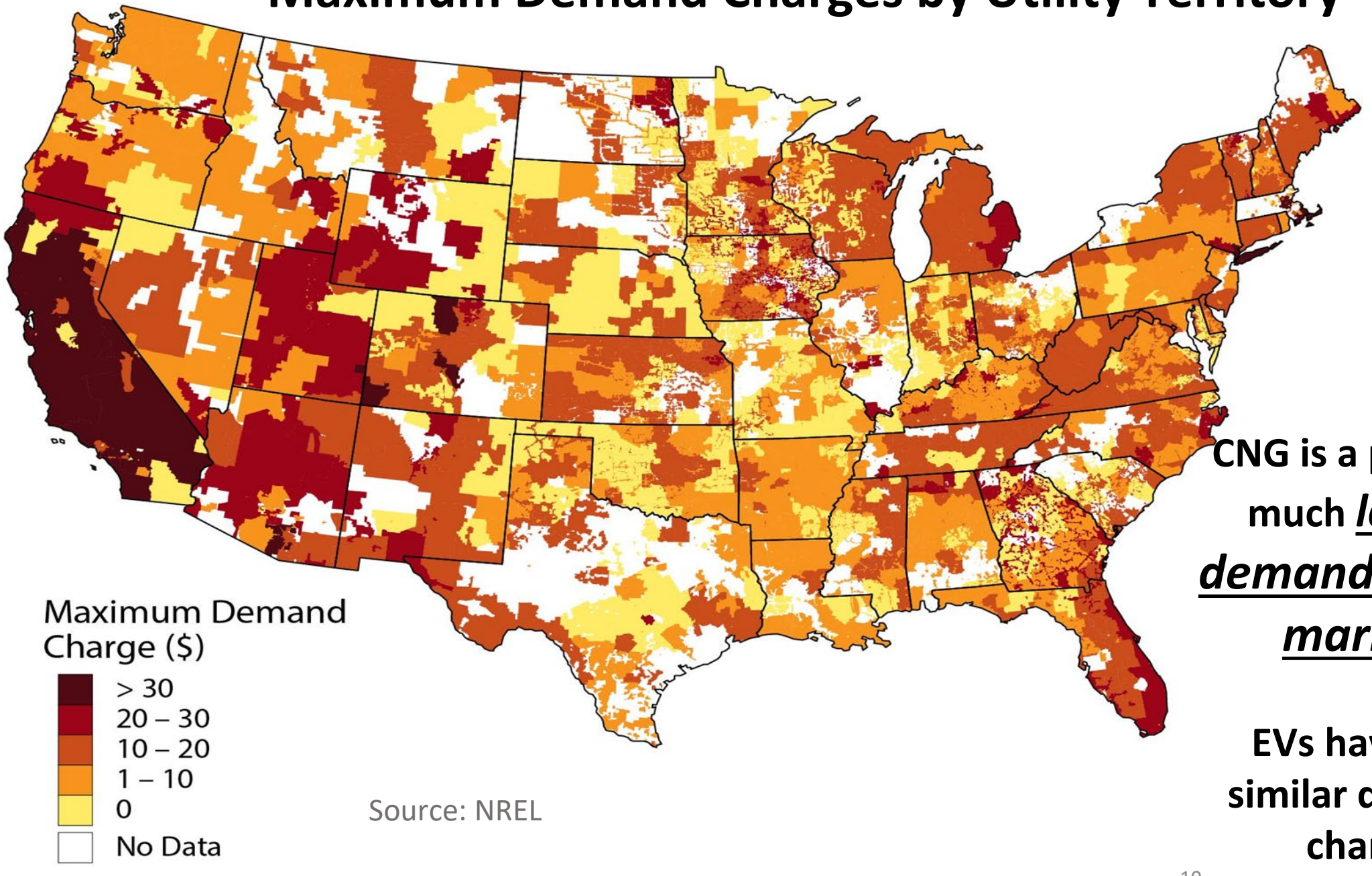
Jeeves™ - Optimized Lithium-ion Energy System Specifications

Average Energy Discharge per Event [kWh]	Max Energy Discharged [kWh]	Max Recharge Power [kW]	Demand Shaved [kW]
31.8	75.3	132.5	124.3

Max DoD	80%
Req'd Storage kWh	94.17
Avg Discharge Power	102.76
Avg Discharge C-Rate	1.09
Average Discharge Duration	19.26
Avg Recharge Power	28.02
Avg Recharge C-Rate	0.30
Average Recharge Duration	274.09

Enough detail to give a company to build a custom system

Maximum Demand Charges by Utility Territory



Source: NREL

CNG is a part of a much *larger demand charge market*.

EVs have the similar demand charge characteristics

Thank You

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