NRG Sense

SAMPLE

# Home Battery Plan

Prepared for: my own house, North Charleston, SC · Dominion Energy South Carolina
Prepared by: Vinh, NRG Sense · November 2026

**This is a sample.** It is written about my own home, from my own bills and receipts, all published at nrgsense.com/my-setup. Your plan has the same seven parts, with your numbers. Mine covers the five full months I have had on time-of-use; yours covers twelve.

| | |
|---|---|
| QUOTE | The $8,500 install sits just above the typical $2,500–$8,000. Three required items on an older house explain it; one item was optional. |
| RATE | Rate 7 with the battery cost **41% less** than Rate 8 over five months: $1,290 against $2,169. |
| BACKUP | The essentials run 17–23 hours on 24.6 kWh, and 8–12 hours on 12.3 kWh. |
| SYSTEM | What I built fits this house: two inverters and 24.6 kWh, about $19,200–$26,350 installed at today's prices. |
| SOLAR | The 6.38 kW ground mount should make about 8,000 kWh in a typical year, and cost about $2,750 self-built. |
| PAYBACK | About 10 years at today's rates, about 8 if rates keep rising 6% a year. No federal credit in 2026; South Carolina's 25% credit applies to the solar. |

## 1 Quote check

What I paid for the battery system, against what the same job usually costs.

| ITEM | PAID | TYPICAL |
|---|---|---|
| DELTA Pro Ultra with 1 battery | ~$4,000 | $4,000–$4,400 |
| DELTA Pro Ultra X with 2 batteries, plus Smart Home Panel 3 | ~$10,000 | $10,700–$11,600 |
| One more 6.1 kWh battery | ~$1,600 | $2,000–$2,350 |
| Professional install | ~$8,500 | $2,500–$8,000 |
| **Battery system, installed (24.6 kWh)** | **~$24,000** | **about $980 per kWh** |

**Verdict: the equipment came in at or below today's dealer prices; the install ran high for reasons that hold up.** For comparison, a Tesla Powerwall 3 runs about $998–$1,200 per kWh installed (EnergySage and SolarReviews figures).

**What pushed the install price up**

- **Required on this house:** a 4-wire upgrade, a new disconnect and added grounding. The house is older, and a newer one would skip most of this.
- **Optional:** a sub-panel I chose to add. On a quote, an item like this should be its own line, so the job can be priced with and without it.

## 2 Rate check

Each month's grid usage, priced two ways: what Dominion billed on Rate 7 with the battery covering the on-peak hours, and what the same kWh would have cost on standard Rate 8.

| MONTH | GRID KWH | RATE 8 | RATE 7 + BATTERY | DIFFERENCE |
|---|---|---|---|---|
| June 2026 | 1,846 | $311 | $190 [a] | **−$121** |
| July 2026 | 2,883 | $522 | $304 [b] | **−$218** |
| August 2026 | 2,657 | $481 | $280 | **−$202** |
| September 2026 | 2,737 | $496 | $289 | **−$207** |
| October 2026 | 2,146 | $358 | $227 | **−$131** |
| **Five months** | **12,269** | **$2,169** | **$1,290** | **−$879 (41%)** |

[a] Before a $19.60 on-peak demand charge. I changed an app setting during the peak window and the house briefly drew from the grid. [b] Before about $85 in Dominion reward-program credits, which are separate from the rate. Rate 8 is computed from Dominion's tariff in effect each month; both plans rose on July 1, 2026. Electricity charges only, rounded to the dollar.

> **Which plan wins: Rate 7, in every month.** It holds only while the battery covers every on-peak hour. One uncovered peak adds a demand charge for the whole month, which is what footnote a shows.

## 3 Backup plan

How long the house runs with the grid down, at two battery sizes and two sets of loads.

| WHAT STAYS ON | AVERAGE DRAW | 12.3 KWH | 24.6 KWH |
|---|---|---|---|
| Essentials: fridge, lights, internet, one window AC | 0.9 kW | 8–12 hours | 17–23 hours |
| Essentials with central AC in place of the window unit | 2.1 kW | 4–5 hours | 7–10 hours |

- **Measured, not modeled:** from my own logs, a full charge of the 24.6 kWh system delivers about 17 kWh to the house. I keep instant transfer armed around the clock, which draws power continuously, so that is a low-end figure.
- **Central AC is the swing load.** It cuts runtime by more than half. For a long outage, cool one room.
- **A multi-day outage outlasts either size.** With the grid out, the battery recharges from solar or a generator. This house has 6.38 kW of panels wired straight into the inverters for that.

## 4 Recommended system

GOOD

### EcoFlow DELTA Pro Ultra

2 batteries · 12.3 kWh · 7.2 kW output

### $11,600–$18,150 installed

- Equipment $9,100–$10,150, including the Smart Home Panel 3
- Grows to 30.7 kWh, one battery at a time
- Takes up to 5.6 kW of solar

BETTER · WHAT I BUILT

### DELTA Pro Ultra + DELTA Pro Ultra X

Two inverters · 2 batteries each · 24.6 kWh

### $19,200–$26,350 installed

- Equipment $16,700–$18,350 at today's prices, with one Smart Home Panel 3. I paid about $15,600, bought in stages
- Each inverter grows on its own, to 30.7 and 61.4 kWh
- Four solar inputs, 15.6 kW of solar between them

**Why 24.6 kWh here:** this house uses 2,100–2,900 kWh a month, with an EV charging at home and a server rack running around the clock. That averages about 3.7 kW, so a four-hour summer peak takes roughly 15 kWh, and the battery has to carry all of it every day. 12.3 kWh cannot.

**Why two inverters:** I started with the DELTA Pro Ultra and added the Ultra X later, which is how a staged build goes. Buying it all at once today, a single Ultra X with four batteries reaches the same 24.6 kWh for $14,700–$16,300 in equipment, with two solar inputs and 10 kW of solar.

Equipment prices are dealer ranges as of November 2026 and change often. Install is the typical $2,500–$8,000 for a main-panel replacement; your electrician prices yours. My own install came to about $8,500.

## 5 Solar option

Panels wired straight into the battery inverters. Nothing is exported to the grid, so there is no interconnection agreement with the utility. This is the array I built through October 2026.

| SOLAR INPUT | PANELS IN THE STRING | FACES | SIZE |
|---|---|---|---|
| Ultra X, input 1 | 6 × Silfab 330 W | West | 1.98 kW |
| Ultra X, input 2 | 3 × ZnShine 440 W | Southeast | 1.32 kW |
| DELTA Pro Ultra, high-voltage | 4 × ZnShine 440 W | Southeast | 1.76 kW |
| DELTA Pro Ultra, low-voltage | 3 × ZnShine 440 W | West | 1.32 kW |
| **Ground mount, four strings** | **16 panels** | | **6.38 kW** |

- **Expected output: about 8,000 kWh in a typical Charleston year.** An estimate from the solar simulator, for an unshaded spot. It moves only between about 7,900 and 8,400 kWh across tilts from 10° to 40°.
- **The direction trade:** split between southeast and west, these panels make roughly 85–90% of what they would all facing south. In exchange, production spreads across the morning and the afternoon.
- **Room to grow:** the two inverters accept 15.6 kW of solar between them, so about 9 kW of input is still open.
- **Cost:** about $2,750 for panels, mounts and cable, with my own labor. Bought new and professionally mounted, 6.38 kW typically runs about $9,600–$16,300.
- **Measured figures come later.** The array is still under test. December is its first full month, and the estimate above gets checked against that bill.

## 6 Payback

| LINE | FIGURE |
|---|---|
| Battery system, installed | ~$24,000 |
| Federal tax credit for a 2026 cash or loan purchase | $0 |
| South Carolina credit for a battery bought without solar | $0 |
| Bill savings, Rate 7 with the battery against Rate 8 | ~$2,400 a year |
| **Payback at today's rates, held flat** | **about 10 years** |
| **Payback with rates rising 6% a year** | **about 8 years** |

- **The federal credit:** it ended December 31, 2025. A 2026 buyer does not get it, so it is not in this math.
- **The 6%:** Dominion raised rates twice in 2026. Savings grow as rates do.
- **Solar is left out of both sides.** The array's cost is not in the $24,000 and the power it makes is not in the $2,400, so the payback with solar counted is shorter than shown.
- **Backup is the other half of the return.** None of these years count what it is worth to keep the house running through an outage.

### South Carolina's 25% solar credit

- **What it is:** 25% of the cost of a qualifying solar energy system, up to $3,500 a year or half your state tax, with the rest carried forward up to 10 years. Form TC-38. It has no end date.
- **On this array:** 25% of about $2,750 is about $690, if the system meets the state's certification rule. I plan to claim it on my 2026 return.
- **The inverters:** inverters are named in the state's ruling as qualifying equipment for a solar system. Mine are built into the battery units, so the inverter share of those units may count as well. I am confirming that before I file.
- **The batteries and the Smart Home Panel 3:** the ruling (SC Revenue Ruling #24-2) gives 100% solar storage as its qualifying example and lists panel upgrades as not qualifying. These batteries also charge from the grid, and the panel is the home's main panel, so neither is counted here.

General information, not tax advice. Confirm the credit with a tax professional before you count on it.

## 7 Next steps

### In this order

- **Settle the size.** Section 4, checked against the loads in section 3.
- **Get the install priced.** An electrician quotes the panel swap, wiring and permit for your house.
- **Order the equipment.** Batteries can be added later without a new permit.
- **Switch to Rate 7 last,** once the battery is covering the on-peak window every day.

### Parts list

| PART | WHERE |
|---|---|
| DELTA Pro Ultra X with batteries | Outbound Power |
| DELTA Pro Ultra with batteries | Outbound Power |
| Smart Home Panel 3 | Added to either system; $3,100–$3,400 |
| Solar panels | Outbound Power |

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### Installer, Charleston area

Ashley River Wired installed this system. (843) 287-9545 · info@arwired.com · arwired.com. Mention NRG Sense when you call. No installer pays me.