

Initial Energy & Economic Analyses of Solar Electric Applications for Delaware Poultry Houses & Farms

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| Financial Inputs | 10 kW | | 65 kW | | 500 kW | |
|---------------------------------|----------------------|----------------------|----------------------|---------|----------------------|---------|
| | DP | DEC | DP | DEC | DP | DEC |
| Module Prices (\$/Wp) | \$6.00 | \$6.00 | \$5.50 | \$5.50 | \$5.00 | \$5.00 |
| Inverter Prices (\$/Wp) | \$1.45 | \$1.45 | \$0.83 | \$0.83 | \$0.60 | \$0.60 |
| Battery Storage Prices (\$/kWh) | \$164 | \$164 | \$125 | \$125 | \$100 | \$100 |
| Utility Electricity Rates | | | | | | |
| Energy charge (\$/kWh) | \$0.133 / \$0.139 | \$0.068 / \$0.088 | \$0.073 / \$0.066 | \$0.040 | \$0.073 / \$0.066 | \$0.040 |
| Demand charge (\$/kW) | — | — | \$15.40 / 23.40 | \$8.80 | \$15.40 / 23.40 | \$8.80 |
| Discount Rate | 12% | 12% | 12% | 12% | 12% | 12% |
| Loan Rate | 10% | 10% | 10% | 10% | 10% | 10% |



| Policy Inputs | 10 kW | 65 kW | 500 kW |
|-----------------------|-------------|-------------|-------------|
| REC Prices (\$/MWh) | \$200 – 240 | \$200 – 240 | \$200 – 240 |
| Investment Tax Credit | 30% | 30% | 30% |
| System Rebate | \$2,000 | \$227,651 | \$0 |

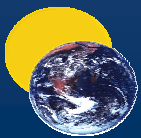
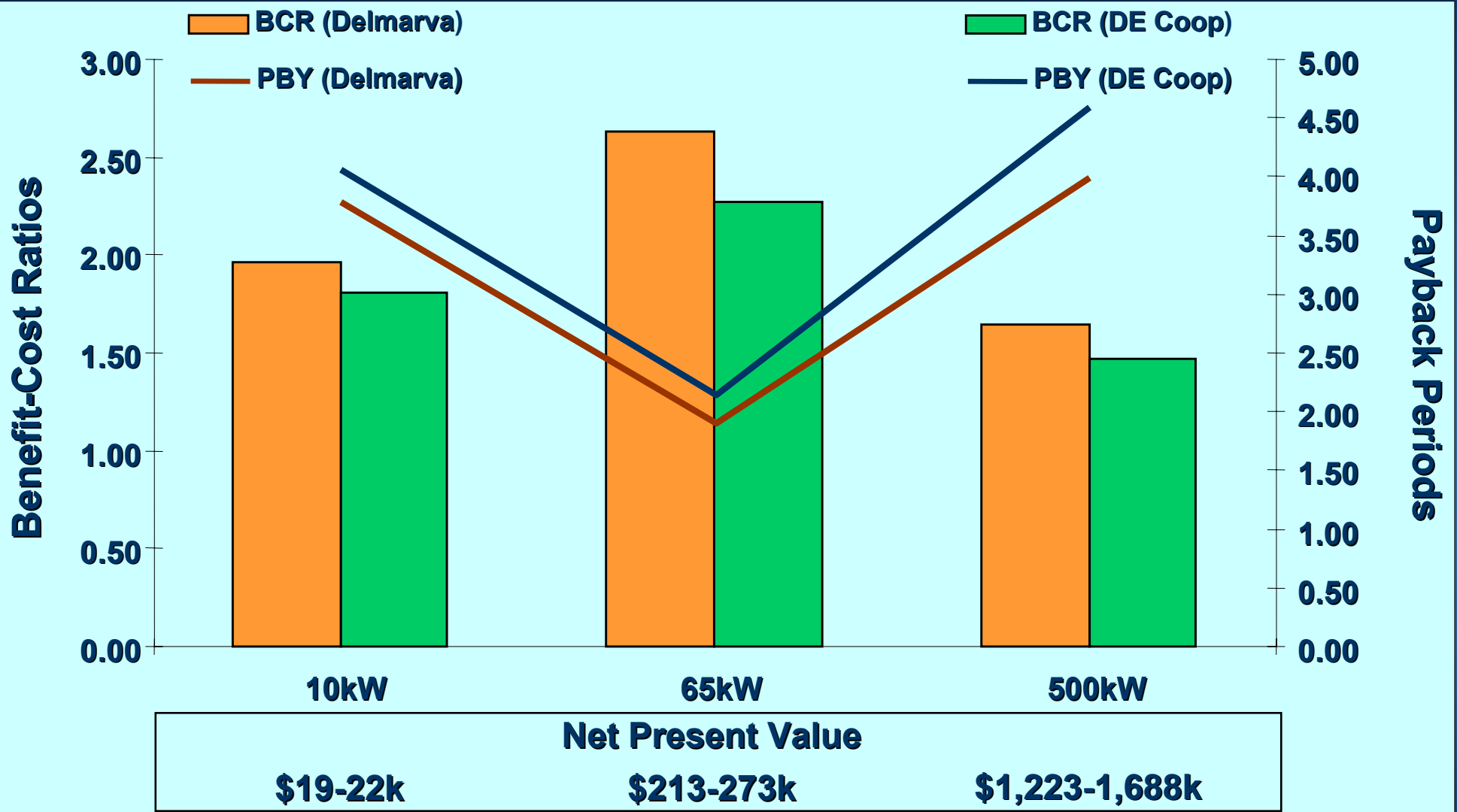
System

Characteristics

| | | | |
|--------------------------------|-----|-----|-------|
| Battery Storage (kWh) | 21 | 138 | 1,065 |
| Assumed PV Lifetime (years) | 25 | 25 | 25 |
| PV Module Efficiency | 12% | 12% | 12% |



Financial Performance of PV Systems



Benefits (%)

| | 10 kW | | 65 kW | | 500 kW | |
|-----------------------|-------|-----|-------|-----|--------|-----|
| | DP | DEC | DP | DEC | DP | DEC |
| Demand Bill Savings | 0% | 0% | 24% | 13% | 20% | 11% |
| Energy Bill Savings | 24% | 14% | 11% | 7% | 9% | 6% |
| Investment Tax Credit | 2% | 3% | 14% | 15% | 19% | 21% |
| Tax Deduction | 16% | 20% | 7% | 15% | 18% | 25% |
| RECs* | 25% | 28% | 28% | 31% | 23% | 26% |
| Emergency Power | 33% | 35% | 16% | 19% | 11% | 11% |

Costs (%)

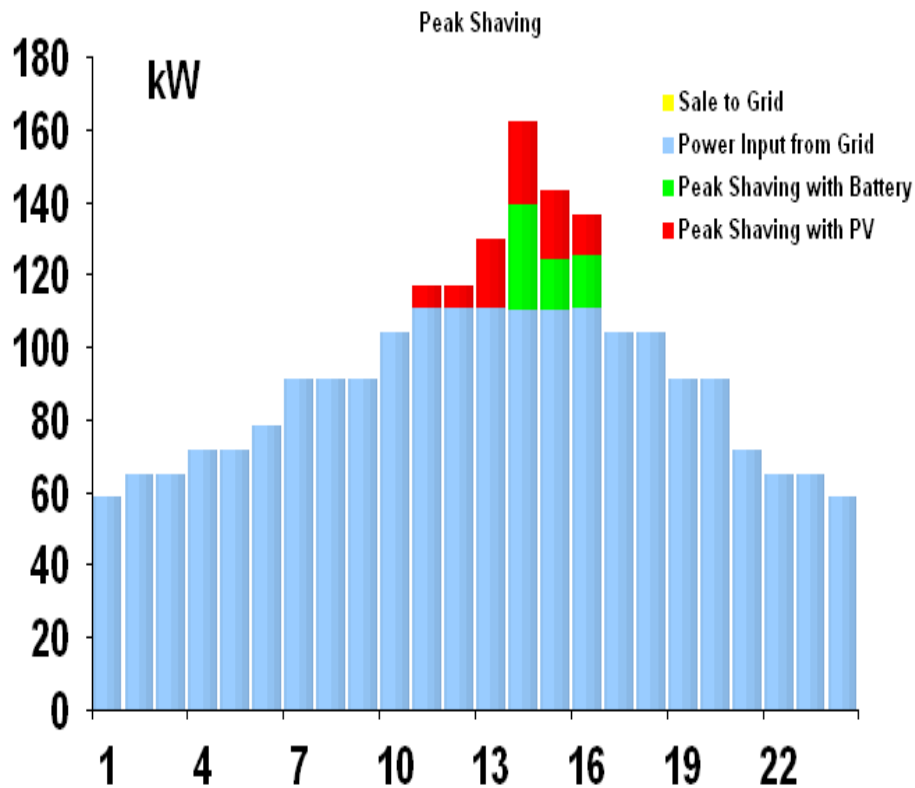
| | | | | | | |
|------------------------|-----|-----|-----|-----|-----|-----|
| PV Array Capital Costs | 69% | 69% | 76% | 76% | 79% | 79% |
| BOS Capital Costs | 30% | 30% | 23% | 23% | 20% | 20% |
| O & M Costs | 1% | 1% | 1% | 1% | 1% | 1% |

*Note: This benefit is based on \$200/MWh RECs.



Typical Day Output of a PV System in Delaware During January and September

January



September

