

PRICING STRATEGY

Regulus Solar Power Inc. | Final case response

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Objective: recommend pricing under the current market, competitor entry and school-demand scenarios using elasticity, payback and price-discrimination logic.

SECTION A - MARKET CONTEXT SUMMARY

- **Revenue stagnation:** RSP projects 2018 revenue of \$18 million, only 2% above 2017.
- **Competitive pressure:** a larger installer entered the Southwest with a lower price and a one-day process, versus RSP's 1.5-day average.
- **Price compression:** typical installation costs declined by nearly 70% between 2010 and 2018, increasing customer price sensitivity.
- **Positioning gap:** RSP has not fully used environmental positioning even though sustainability is an important demand driver.
- **Growth opportunity:** about 95,000 of roughly 100,000 U.S. K-12 schools remained without solar installations.

RSP's problem is therefore competitive and structural, not a demand ceiling. The pricing decision must balance revenue growth with margin and operational capacity.

SCENARIO 1 - CURRENT SITUATION

Using the three observed demand points, the fitted inverse demand curve is:

$$P = 18,750 - 12.5Q$$

Price	Quantity	Illustrative revenue	Point elasticity
\$15,000	300	\$4.50M	-4.00
\$13,500	420	\$5.67M	-2.57
\$12,000	540	\$6.48M	-1.78

Elasticities are calculated using point elasticity, $E = (dQ/dP)(P/Q)$, along the fitted linear demand curve. Because $|E| > 1$ at all observed points, demand is elastic over the observed range.

The revenue figures above are **illustrative revenue from installations represented by the case demand curve**; they are not RSP's total company revenue.

Preliminary conclusion: \$12,000 is the revenue-maximising price among the three observed case points, but it cannot be confirmed as profit-maximising without marginal-cost data.

SCENARIO 1 - PAYBACK AND CONDITIONAL RECOMMENDATION

Simple customer payback and the limit of the available cost data

Simple payback calculation

Item	Calculation / value
Annual generation	5 kW x 6.5 hours x 365 = 11,862.5 kWh
Gross annual savings	11,862.5 x \$0.15 = \$1,779.38
Less maintenance and utility fee	\$200 + (\$15 x 12) = \$380
Net annual savings	\$1,399.38
Net customer cost at \$15,000	\$10,500 after 30% tax credit
Simple payback	\$10,500 / \$1,399.38 = 7.5 years

Payback comparison

Price	After-credit cost	Simple payback
\$15,000	\$10,500	7.5 years
\$13,500	\$9,450	6.8 years
\$12,000	\$8,400	6.0 years

Payback assumptions

The calculation is a **simple, undiscounted payback**. It assumes all generation offsets electricity at \$0.15/kWh, the utility rate remains constant, the 30% tax credit applies to the full price, and there is no financing cost, panel degradation, inverter replacement, unexpected repair expense or time value of money.

Recommendation and decision condition

RSP should move toward **\$12,000** because it is the best observed revenue point and reduces customer payback to about six years. However, this is a conditional recommendation, not proof of profit maximisation.

Moving from \$15,000 to \$12,000 adds \$1.98M of illustrative revenue and requires 240 additional installations. The price cut improves profit only if the relevant marginal cost of those additional installations is below approximately **\$8,250 per installation** (\$1.98M / 240).

The theoretical revenue maximum at \$9,375 and 750 installations lies outside the observed range and should remain a benchmark, not the operating recommendation.

SCENARIO 2 AND 3

Competitor response and school-segment pricing

SCENARIO 2 - COMPETITOR AT \$11,000

The original demand equation should **not** be treated as RSP's post-entry demand curve. Competitor entry can shift RSP's demand inward, so quantities such as 580 or 620 are only illustrations under the unchanged-demand assumption.

Revenue break-even test

At \$12,000 and 540 installations, illustrative revenue is \$6.48M. To preserve this revenue at \$11,000, RSP must sell:

$$Q = \$6,480,000 / \$11,000 = 589.1$$

Therefore, matching \$11,000 raises revenue only if RSP sells at least **590 installations**. Actual post-entry demand is unknown.

Profit condition under the report's illustrative quantity assumption

If matching \$11,000 produced 620 installations instead of 540, the additional illustrative revenue would be \$340,000 across 80 additional installations. The match increases profit only if marginal cost is below approximately **\$4.250 per additional installation**

Scenario 2 recommendation

Keep the list price near \$12,000, use discounts only against explicit retention or volume thresholds, and compete through one-day installation, warranty/service and credible green positioning. Do not call \$11,500 the "best balance" without a defined objective and cost threshold.

SCENARIO 3 - SURGE IN GREEN AWARENESS AMONG SCHOOLS

Schools and households are identifiable segments, so third-degree price discrimination is possible. However, a surge in school demand may increase willingness to pay; it does not automatically justify a lower markup.

Segment	Recommended pricing architecture	Economic logic
Residential	\$12,000 benchmark for a standard 5 kW system	Observed revenue point; payback-led selling
Schools	Individually quoted per-kW price; discounts only for minimum capacity, multiple sites and longer contracts	Volume and contract economies; not an automatic segment discount
Service	Separate annual monitoring and maintenance fee	Separates recurring service value from installation price

The school recommendation combines two ideas: different pricing between schools and households is **third-degree price discrimination**; quantity or contract-length discounts are closer to **second-degree pricing**. A fixed 5-10% discount is not defensible from the case data.

SECTION C - CEO SUMMARY AND CONSOLIDATED RECOMMENDATION

Five-line summary and decision table

1. RSP's weak growth reflects price, speed and positioning pressure rather than a mature market.
2. Demand is elastic across the observed case points, and \$12,000 produces the highest observed illustrative revenue while improving simple payback to about six years.
3. \$12,000 is not proven profit-maximising; the move is sensible only if marginal cost and operating capacity support the additional volume.
4. Following competitor entry, RSP should use revenue and profit break-even thresholds rather than rely on the unchanged pre-entry demand curve.
5. Schools should receive individually quoted contract pricing, with discounts tied to scale or duration and service priced separately.

Consolidated recommendation table

Scenario	Recommendation	Decision rule / reason	Key caveat
1. Current situation	Move toward \$12,000; launch one-day installation	Best observed revenue point; payback improves	Proceed only if marginal cost is below the relevant threshold
2. Competitor at \$11,000	Hold near \$12,000; use targeted discounts and differentiate	At \$11,000, at least 590 installations are required to preserve \$6.48M revenue	Post-entry demand and marginal cost are unknown
3. School demand surge	Use individual per-kW quotes; conditional scale/term discounts; separate service fee	Pricing should reflect system size, contract duration and willingness to pay	No school-specific cost, size or elasticity data

Final decision

Adopt a **\$12,000 residential benchmark**, subject to a cost and capacity check; avoid an automatic \$11,000 match; and create a separately quoted institutional product for schools. Track contribution margin, conversion rate, installation capacity and cancellation rate before making any price permanent.

Source note: calculations use the customer-cost table and demand figure provided in the Regulus Solar Power Inc. case. Revenue estimates refer only to the installations represented by the case demand curve.

AI-use disclosure: AI tools were used to support structure, language refinement and report design. Calculations, economic reasoning and final recommendations were reviewed and selected by Param Parekh.