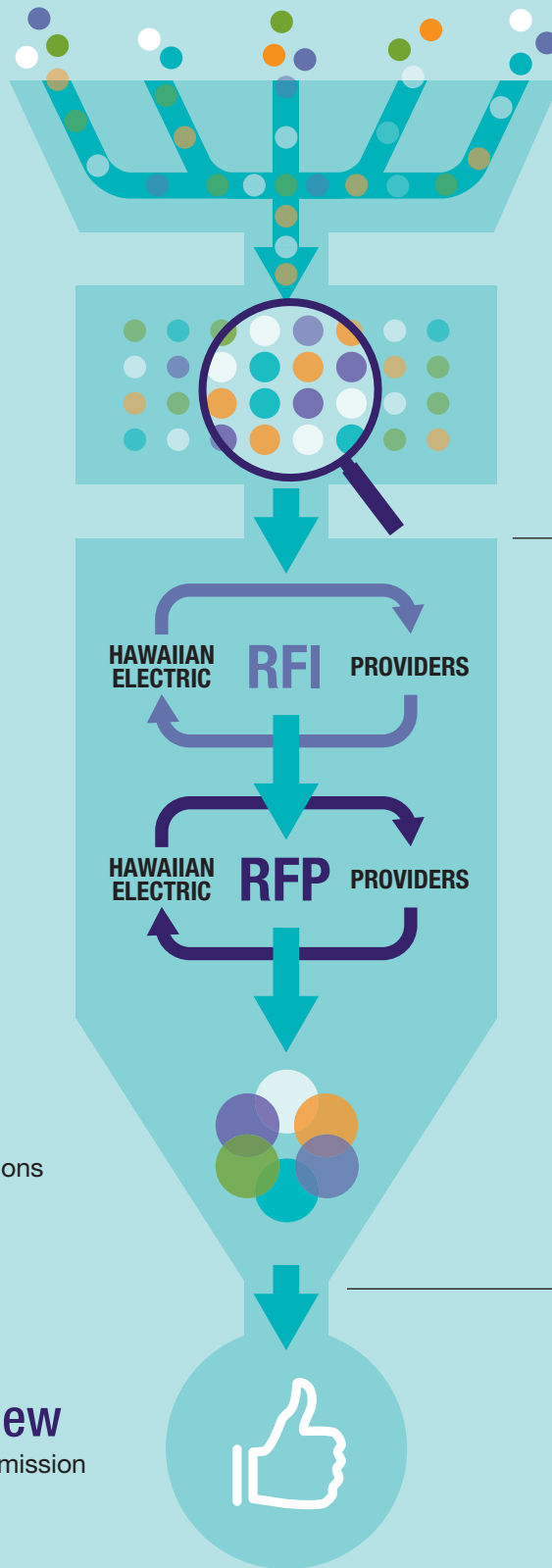


The Integrated Grid Planning Process

- 1 Data Collection**
 Forecast and gather data.
- 2 Analysis**
 Analyze data to determine energy needs.
- 3 Define & Refine Plan**
 Gather information from providers through Request for Information (RFI) to better define plan. Then, procure preliminary Request for Proposals (RFP) to provide a more realistic cost.
- 4 Optimize Plan**
 Determine best solutions/options to fulfill plan in timeframe.
- 5 Commission Review**
 Present final plan to the Commission for review.

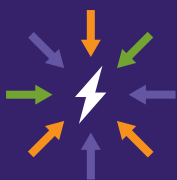


CONDENSED TIMELINE

18 months

This phase previously took 30 months

What's Different from Before?



→ Multiple providers present different solutions to address energy needs.



→ Hawaiian Electric reviews all options and determines best mix of solutions that achieves goal and maximizes customer value.



→ Information and cost is based on actual vs theoretical data.

The Integrated Grid Planning Process

Building the Plan to Reach 100% Renewable Energy by 2045



The Integrated Grid Planning (IGP) process is just like creating a plan for a home renovation

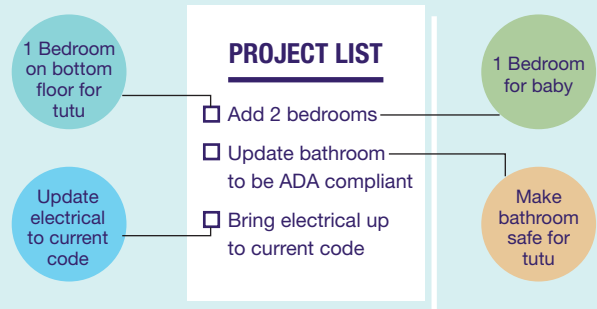


1 Data Collection



RENOVATION: Homeowner talks with family to determine what's needed.
IGP: Hawaiian Electric speaks with community and stakeholders to gather information and forecast data.

2 Analysis



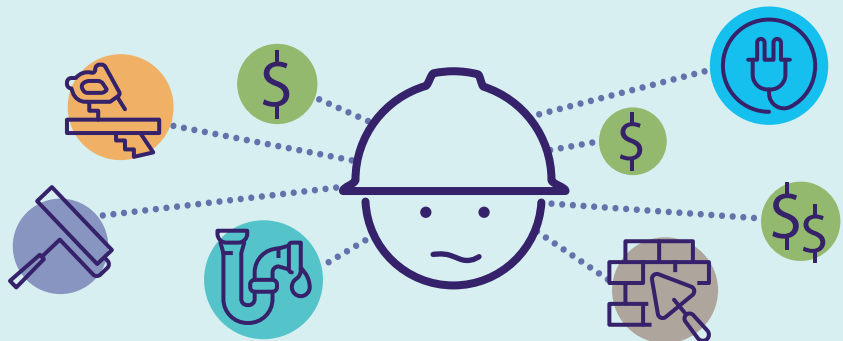
RENOVATION: Homeowner creates a list of projects to be done to meet household needs.
IGP: Hawaiian Electric analyzes collected data and forecasts to determine energy needs.

3 Define & Refine Plan

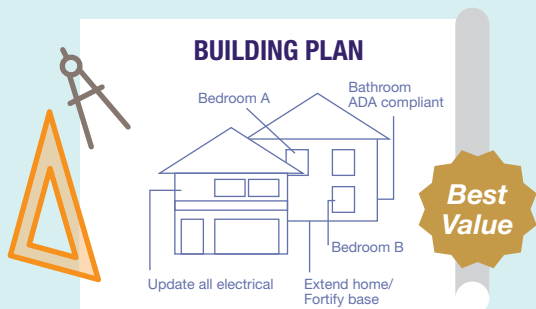


RENOVATION: Homeowner and general contractor gather pertinent information and get price quotes from subcontractors such as carpenters and electricians.

IGP: Hawaiian Electric gathers information from providers through a Request for Information (RFI) to define and refine the plan, then issues preliminary Request for Proposals for solutions with realistic cost estimates and data.

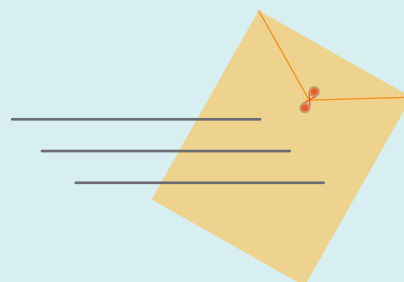


4 Optimize Plan



RENOVATION: A building plan is designed for long-term value.
IGP: Hawaiian Electric determines optimal solutions to maximize customer value and complete plan in shorter timeline.

5 Commission Review



RENOVATION: Homeowner submits building plans to City & County for permit approval.
IGP: Hawaiian Electric presents the final plan to the Public Utilities Commission for review.