



Bison & Bird

CASE STUDY

ADMIN TO AI ECOSYNERGY'S WORKFLOW REWIRED

Aligning tools, people, and AI around one clear plan
for Ecosynergy's operations and modeling



Ecosynergy Needs Analysis

Ecosynergy helps home builders meet energy-code programs by modeling homes and producing compliance outputs.

Website:

Ecosynergy

Industries

Residential Construction Compliance

Business size

2-10

Services

Technical needs analysis, Admin workflow redesign + automation ideas, Portal MVP scope

Software

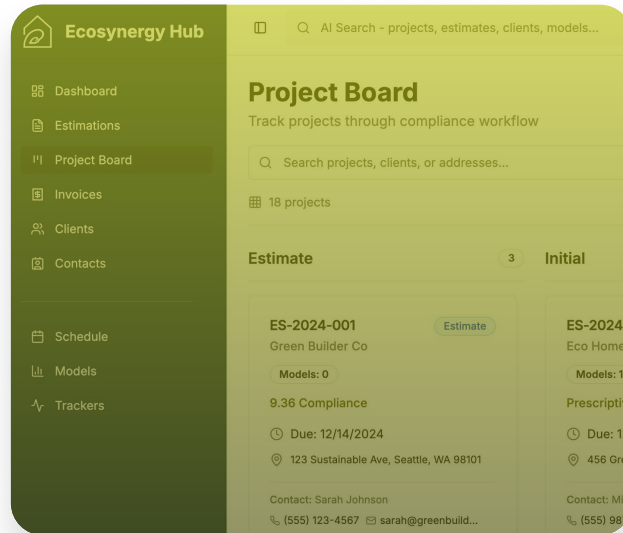
Existing stack to integrate/automate: Trello, Zapier, QuickBooks, Zoho WorkDrive (or SharePoint), Outlook/Bookings/Calendly.

Model & compliance: HOT2000 v11.x (.h2k exports), model wrapper API, validation logs.

Introduction

This project set out to organize Ecosynergy's modernization of their day-to-day operations and modeling with a clear step-by-step plan. This plan was created by conducting significant research into the operations of Ecosynergy through stakeholder interviews, mapping process, and investigating the complete technology stack.

This allowed our team to explore where tools were not connected, work was slowed down, and significant points that could be improved with technology. The final analysis compared two paths - tightening the current tools vs. building a unified platform - so decisions could balance cost, risk, and long-term scale.



Research Methodology

The project started with stakeholder interviews with Ecosynergy's admins, modelers, and leadership to understand how work really happens day to day, not just how it looks on paper.



Existing materials and tools were reviewed: the Excel energy model (with HOT2000 outputs), admin checklists, Trello boards, QuickBooks flows, email templates, and scopes of work. This helped us see where data was created, copied, or lost.



Mapped the current process from estimate request through to invoice in a simple, step-by-step admin diagram. Pain points and risks were marked directly on this map (manual entry, double work, unclear hand-offs, missing tracking).

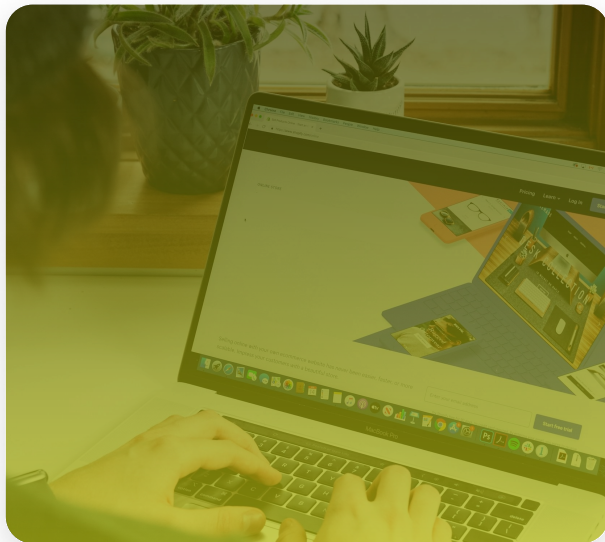
In parallel, we did a light tech stack audit: which tools they already pay for, which automations exist (or could exist), and where an API or simple integration would give the biggest win.

From these insights, we created future-state concepts for the operations portal (project board, calendar, model area, AI helpers) and a phased roadmap. Each phase was reviewed with the client, adjusted based on their feedback, and then used to guide both the prototype and the funding story.

Challenge

Ecosynergy's team was using a mix of tools and habits without a shared technology plan. They needed help aligning on best practices and exploring how tech could make their current estimating, admin, and modeling workflow more efficient.

From our side, the challenge was also to propose a realistic path toward a management portal with AI support (plan-reading, smart scheduling, daily summaries) that could sit on top of their existing Excel/ HOT2000 model and admin flow - without breaking the current business. That meant turning a rough idea into a concrete, phased strategy the team could understand, trust, and seek funding for.



Approach

At Bison & Bird, we developed a strategic, phased approach to the Ecosynergy digital transformation that balanced immediate operational improvements with long-term strategic goals.



Understand the Reality

First, the work started with **listening and mapping**. We talked with the team, looked at their Excel model, Trello boards, QuickBooks flow, and admin checklists, then drew a simple “current state” map from estimate request to final invoice.



Compare Paths, Not Just Tools

Next, we **framed options instead of jumping to code**. We compared “improve what you already have” (better use of existing tools and automations) with “build a portal” (projects board, calendar, model area, AI helpers). This became a phased roadmap with clear trade-offs, effort ranges, and risks.



Shape the Future Portal

In parallel, we **shaped the future portal** at a high level: roles and permissions, Project Board and Calendar, integration with the Excel/HOT2000 model, and where AI makes sense (plan-reading, prefill from estimates, smart scheduling, daily summaries).



Make It Tangible

Finally, we **turned the plan into something tangible**: a clickable prototype to show how the portal could look and feel, supported by written technical notes (architecture, security, multi-tenant plan, payments) so Ecosynergy can use this both for internal alignment and for funding conversations.

Business Impact

The team now has a shared view of where they are, where they're going, and which tools matter. The work gave them a concrete technology direction, plus a structured plan they can use to organise funding and make decisions about their new portal and AI features.



Clear direction instead of tool chaos

The team now has one shared picture of how work should flow and which tools matter, instead of everyone hacking their own way through Trello, email, Excel, and QuickBooks.



More value from tools they already pay for

The plan shows how to tighten up their current stack (licenses, automations, integrations) so they can see benefits before any big build.



Portal and AI ideas turned into a concrete plan

The “management portal with AI” is no longer a vague wish. It’s a phased roadmap with clear phases, effort ranges, and risks that the team can actually plan around.



Stronger case for funding

The needs analysis, admin map, and prototype give Ecosynergy a story they can show to funders: real pain points, a realistic solution, and a staged path to get there.

Key Insights & Roadmap

- Our discovery confirmed that the Excel-based 9.36 / HOT2000 model is a real competitive asset; the main risk isn't the math, but how inputs, files, and versions are collected and managed around it.
- Intake, estimation, scheduling, and invoicing created more operational friction than the modelling itself, so standardizing these touchpoints offered the fastest path to visible time savings.
- Workshops showed strong appetite for AI and automation, but also highlighted the need for a single home (the portal) and clear governance so experiments become reliable, auditable workflows rather than one-off tools.

Forward-Looking Roadmap

Stabilize and standardize operations

- Turn the current-state maps into simple, agreed "this is how we work now" playbooks.
- Add small automations around estimates, folders, job setup, and QuickBooks so the team feels immediate relief.
- Define a minimal data model for projects, clients, and jobs that everything else will plug into.

Layer in AI Assistants

- Roll out Prefill from Estimate (AI) and Component Counter from drawings, with human-in-the-loop review.
- Add AI Daily Summary and AI Assistant to surface priorities and answer "what now?" in context.
- Test AI calendar suggestions to smooth scheduling and routing, starting with a small slice of jobs.

Productize and scale

- Add SSO, tenant isolation, detailed audit trails, and backup/DR so the platform can serve multiple clients safely.
- Introduce subscriptions or metered billing, quotas, and usage analytics to support a commercial offering.
- Use feedback from Ecosynergy's team and early customers to shape version 2 of the portal and AI features.

Conclusion

The Ecosynergy engagement started as a “we’re buried in Excel and email” problem and turned into a clear technology direction for the whole business. By mapping current workflows, capturing pain points from the team, and translating their energy-modelling reality into a practical portal concept, we gave Ecosynergy a shared picture of how their operations can work in the next 3–5 years.



Key Achievements

- Deep discovery of Ecosynergy's workflows and modelling realities
- Unified admin, estimating, and modelling into one shared process map
- AI-ready portal prototype to connect projects, models, and scheduling
- Phased implementation and funding roadmap for low-risk rollout



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