PCBancard Proposal Generator — Complete Implementation Spec v3.0

CRITICAL: What's Wrong With Current Output + How to Fix It

Current Problems (Must Fix)

1. **No intake questions** — Not collecting merchant info (name, owner, website, phone, email, address) or agent info

2. **No business research** — Not pulling logo, industry, services, reviews, or "about" language

3. **Not using spreadsheets** — Shows $0/mo fees and 0.00% effective rate (extraction broken)

4. **Too short** — Outputs 1-page fluff instead of 2-4 page real proposal

5. **No visuals** — No Gemini images, no branding, feels empty

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PART 1: INTAKE FORM SPECIFICATION

Required Fields

Agent Information (REQUIRED — prints on proposal)

Field	Type	Validation	Default
agent_first_name	string	Required, 1-50 chars	—
agent_last_name	string	Required, 1-50 chars	—
agent_title	string	Required	"Account Executive"
agent_phone	string	Required, valid phone	—
agent_email	string	Required, valid email	—

File Uploads (REQUIRED)

Field	Type	Validation
dual_pricing_spreadsheet	file	.xlsx, .xls, .csv — required
interchange_plus_spreadsheet	file	.xlsx, .xls, .csv — required

Optional Fields (Strongly Encouraged)

Merchant Information

Field	Type	Notes
business_name	string	Used throughout proposal

owner_name	string	Primary contact
business_address	string	Full address
business_phone	string	Contact number
business_email	string	Contact email
business_website	URL	**Triggers business research**

Context Fields

Field	Type	Notes
industry_guess	string	If website unavailable
current_processor	string	Square/Toast/Clover/etc.
rep_notes	text	Pain points, goals, must-haves

JSON Schema

```
{
  "$schema": "http://json-schema.org/draft-07/schema#",
  "type": "object",
  "required": ["agent_first_name", "agent_last_name", "agent_title", "agent_phone", "agent_email", "dual_pr:
  "properties": {
    "agent_first_name": { "type": "string", "minLength": 1, "maxLength": 50 },
    "agent_last_name": { "type": "string", "minLength": 1, "maxLength": 50 },
    "agent_title": { "type": "string", "default": "Account Executive" },
    "agent_phone": { "type": "string", "pattern": "^[0-9\\-\\+\\(\\)\\s]+$" },
    "agent_email": { "type": "string", "format": "email" },
    "business_name": { "type": "string" },
    "owner_name": { "type": "string" },
    "business_address": { "type": "string" },
    "business_phone": { "type": "string" },
    "business_email": { "type": "string", "format": "email" },
    "business_website": { "type": "string", "format": "uri" },
    "industry_guess": { "type": "string" },
    "current_processor": { "type": "string" },
    "rep_notes": { "type": "string", "maxLength": 2000 },
    "dual_pricing_spreadsheet": { "type": "string", "description": "File path or base64" },
    "interchange_plus_spreadsheet": { "type": "string", "description": "File path or base64" }
  }
}
```

PART 2: SPREADSHEET DATA EXTRACTION

Required Extractions

From **BOTH** spreadsheets, extract:

Data Point	Source Location	Fallback

current_monthly_volume	Sum of card brand volumes	"Not provided"
current_monthly_fees	"TOTAL PROCESSING FEES" (Current)	"Not provided"
current_effective_rate	Calculate: fees ÷ volume × 100	"Not provided"
current_annual_fees	monthly × 12	Calculate

From **Dual Pricing** spreadsheet:

Data Point	Source Location
dp_monthly_cost	"TOTAL PROCESSING FEES" (Proposed)
dp_monthly_savings	"Estimated Monthly Processing Savings"
dp_annual_savings	"Estimated Yearly Processing Savings"
dp_savings_percent	"Estimated Percentage of Monthly Savings"

From **Interchange Plus** spreadsheet:

Data Point	Source Location
icp_monthly_cost	"TOTAL PROCESSING FEES" (Proposed)
icp_monthly_savings	"Estimated Monthly Processing Savings"
icp_annual_savings	"Estimated Yearly Processing Savings"
icp_savings_percent	"Estimated Percentage of Monthly Savings"

Sanity Checks (CRITICAL)

```
// SANITY CHECK 1: Zero fees with positive volume
if (current_monthly_volume > 0 && current_monthly_fees === 0) {
  // DO NOT output "$0 fees"
  // Flag as extraction error
  extraction_warning = "Data check needed: Volume detected but fees computed to $0. Please verify spreadshee
  current_monthly_fees = "Not enough data provided";
}

// SANITY CHECK 2: Negative savings
if (dp_monthly_savings < 0 || icp_monthly_savings < 0) {
  extraction_warning = "Warning: Current rates appear lower than proposed. Please verify data.";
}

// SANITY CHECK 3: Missing values
// Never invent numbers — mark as "Not provided" and adjust narrative
if (!value || value === null || value === undefined) {
  return "Not provided";
}

// SANITY CHECK 4: Unrealistic effective rate
if (current_effective_rate > 10) {
  extraction_warning = "Effective rate exceeds 10% — please verify calculation.";
}
```

Normalized Extraction JSON

```
{
  "extraction_status": "success | partial | failed",
  "extraction_warnings": [],

  "current_state": {
    "monthly_volume": 16531.97,
    "monthly_fees": 1415.58,
    "effective_rate": 8.56,
    "annual_fees": 16986.96
  },

  "dual_pricing": {
    "monthly_cost": 64.95,
    "monthly_savings": 1350.63,
    "annual_savings": 16207.54,
    "savings_percent": 95.4
  },

  "interchange_plus": {
    "monthly_cost": 893.83,
    "monthly_savings": 521.75,
    "annual_savings": 6260.99,
    "savings_percent": 36.9
  },

  "recommendation": "dual_pricing",
  "recommendation_reason": "Dual Pricing delivers $9,946.55 more annual savings than Interchange+"
}
```

PART 3: BUSINESS RESEARCH PLAN

When Website URL is Provided

Extract:

Data Point	Method	Fallback
`logo_url`	Scrape from site, check /logo.png, /images/logo.*, favicon	None (use text name)
`business_description`	Meta description, About page, homepage H1/H2	"{business_name} is a local business."
`industry_type`	Infer from content, schema.org markup, categories	Use `industry_guess` field
`services_products`	Products/services pages, menu items	"various products and services"
`brand_colors`	Extract from CSS, logo colors	PCBancard defaults
`years_in_business`	About page, footer copyright	Omit if unknown
`review_cues`	Google rating if available	Omit if unknown

When Website is NOT Provided

Fall back to:

1. Use `business_name` + `business_address` to infer category

2. Use `industry_guess` if provided

3. Default to generic but honest: "Based on the information provided, {business_name} is a local business serving customers in {city/area}."

Research Output JSON

```
{
  "research_status": "complete | partial | minimal",
  "logo_url": "https://example.com/logo.png",
  "business_description": "Smith's Auto Repair is a family-owned automotive service center specializing in b
  "industry_type": "Automotive Service",
  "services_products": ["Brake repair", "Oil changes", "Tire services", "General maintenance"],
  "brand_colors": ["#1a365d", "#e53e3e"],
  "tone_recommendation": "professional, trustworthy, local",
  "years_in_business": null,
  "source_urls": ["https://example.com", "https://example.com/about"]
}
```

PART 4: GEMINI IMAGE GENERATION PLAN

Required Images (4-6 per proposal)

1. Hero Banner (Industry-Specific)

```
Prompt: "Professional, clean hero banner image for a payment processing proposal for a {industry_type} busin
```

2. Comparison Section Background

```
Prompt: "Minimalist abstract background for a pricing comparison section. Clean lines, subtle gradients in b
```

3. Feature Icons (Set of 3)

```
Prompt: "Set of three matching flat icons in a modern professional style representing: (1) transparent prici
```

4. Local Trust Visual

```
Prompt: "High-quality photographic-style image representing local business trust and long-term partnership:
```

5. Equipment Showcase (Optional)

```
Prompt: "Modern payment terminal on a clean retail counter, professional product photography style, soft sha
```

6. Success/Growth Visual (Optional)

```
Prompt: "Abstract representation of business growth and financial savings: upward flowing lines or particles
```

Image Rules

- **DO NOT** generate or alter the merchant's logo — use the real logo from their website

- **DO NOT** include any text in generated images

- **DO NOT** include trademarked brands, characters, or recognizable logos

- **DO** keep images professional, clean, print-ready

- **DO** match the business industry when possible

PART 5: COMPLETE PROPOSAL TEMPLATE (Markdown)

```
# Custom Payment Processing Proposal

**Prepared exclusively for:** {business_name}
**Primary Contact:** {owner_name}
**Business Address:** {business_address}
**Business Phone:** {business_phone}
**Business Email:** {business_email}
**Website:** {business_website}

**Prepared on:** {date}
**Prepared by:** {agent_first_name} {agent_last_name}, {agent_title}
**Direct line:** {agent_phone} | **Email:** {agent_email}

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## 1) Executive Summary — What We Found + What We Recommend

### Quick Snapshot of Your Business
Based on your website and public presence, {business_name} is a {industry_type} that {one_sentence_descript

### The Problem We're Solving (in plain English)
Most businesses don't realize they're quietly donating **3 to 4%** of revenue to card acceptance costs — and

### Your Current Processing Snapshot
| Metric | Value |
|--------|-------|
| Monthly Card Volume | {current_monthly_volume} |
| Estimated Monthly Processing Cost | {current_monthly_fees} |
| Estimated Effective Rate | {current_effective_rate} |
| Estimated Annual Cost | {current_annual_fees} |

> If any fields show "Not provided," the spreadsheet didn't include enough data to calculate reliably.

### Recommendation
**Recommended path:** {recommended_option}
**Why:** {recommendation_reason}

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## 2) Your Current Setup — What It's Costing You
```

The Hidden Issue
Card processing is one of the only expense categories where:
- Pricing is complex and hard to compare
- Changes happen without clear explanation
- The "all-in" cost is difficult to see day-to-day

So owners often feel the cost… but don't have a clean lever to control it.

What We Calculated From Your Data
Metric	Monthly	Annual
Current Processing Cost	{current_monthly_fees}	{current_annual_fees}
Primary Cost Drivers	{cost_drivers_or_not_provided}	—

What this means: {consequence_statement_tailored_to_merchant}

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3) Options Comparison — Current vs Dual Pricing vs Interchange+

Option	Monthly Cost	Annual Cost	Monthly Savings	Annual Savings
Current	{current_monthly_fees}	{current_annual_fees}	—	—
Dual Pricing	{dp_monthly_cost}	{dp_annual_cost}	{dp_monthly_savings}	{dp_annual_savings}
Interchange+	{icp_monthly_cost}	{icp_annual_cost}	{icp_monthly_savings}	{icp_annual_savings}

How to Think About the Two Models

Dual Pricing (recommended for most in-person businesses):

> "With dual pricing, you offer two prices—one for cash, one for cards. It's fully automated. The system doe

Best when: {dp_best_fit_reason}

Interchange+ (Cost-Plus):

A transparent pass-through model where you pay actual interchange plus a clearly stated markup. It's a stror

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4) Our Recommendation — The "Why" Behind It

Why {recommended_option} is the Best Fit for {business_name}

This recommendation is based on:
1. Your business profile ({industry_type}, typical checkout flow, customer experience priorities)
2. The math from your spreadsheets (the only numbers we're willing to stand on)

Key reasons:
- **Reason #1:** {reason_1}
- **Reason #2:** {reason_2}
- **Reason #3:** {reason_3}

What Success Looks Like
- A cleaner monthly processing picture (less "mystery math")
- A setup that's easier for staff to run
- A plan that scales as volume grows
- A documented path to savings (not just promises)

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5) Recommended Equipment & Setup

Recommended: {recommended_equipment_name}

Chosen because it supports:
- {business_need_1}
- {business_need_2}
- {business_need_3}

Key capabilities:
- {capability_1}
- {capability_2}
- {capability_3}

> We only list features verified for this specific device. If the spreadsheet or notes didn't specify equipr

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6) Implementation Plan — What Happens Next

Step-by-step rollout

Step	What Happens	Timeline
1	Confirm fit + finalize option	10-15 min call
2	Finalize equipment + pricing configuration	1-2 days
3	Underwriting + setup (we handle this with you)	3-5 business days
4	Install + go-live support	Scheduled
5	First 30-day check-in	Day 30

Estimated total timeline: {timeline_estimate}

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7) Risk Reversal & Support

60-Day No-Mistakes, No-Regrets Policy
If something isn't right in the first 60 days, we don't play games. We fix it — or unwind it. The point is ±

Ongoing Support
You'll have a real person, not a ticket system:
- **Direct line:** {agent_phone}
- **Email:** {agent_email}

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8) Next Steps

Option A — Schedule a quick call:
{scheduler_link_or_contact_info}

Option B — Reply with one line:
"YES — send the next steps."

Compliance & Disclosures

All savings estimates are based on the uploaded spreadsheets and the assumptions shown within them. Actual ‹

This proposal is valid for 30 days from the preparation date.

PART 6: OPTIONAL POWER MODULES

Module A: $1,000 Conversion Incentive

Insert after Recommendation section when applicable

```
### Your Conversion Incentive (If You Choose to Use It)

You may have the opportunity to apply up to **$1,000** toward conversion costs (equipment, setup, or transit

If used, we'll document exactly where it goes and why — so it's a true business decision, not a gimmick.
```

Module B: $500 Merchant Assurance

Insert under Risk Reversal section when applicable

```
### Merchant Assurance

If a mistake happens during the transition and it creates a measurable cost, we have a structured way to mak
```

PART 7: SYSTEM PROMPT FOR REPLIT PROPOSAL GENERATOR

```
SYSTEM PROMPT — PCBancard Proposal Generator Agent

You are the PCBancard Proposal Generator. Your job is to create professional, merchant-specific payment prop

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CORE RULES (NEVER VIOLATE)
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1. SPREADSHEETS ARE SOURCE OF TRUTH
   - All numbers in the proposal MUST come from the uploaded spreadsheets
   - NEVER invent, estimate, or round numbers beyond what's in the data
   - If a value is missing, output "Not provided" — do not guess

2. SANITY CHECKS (CRITICAL)
   - If volume > 0 but fees = 0, DO NOT output "$0 fees"
   - Instead: flag as "Data check needed" internally, output "Not enough data provided" externally
   - If effective rate > 10%, flag for review
   - If savings are negative, warn that current rates appear lower than proposed

3. NEVER SAY "$0 FEES" UNLESS VERIFIED
   - This is the #1 credibility killer
   - Triple-check before any zero-dollar claim

4. USE EXACT DUAL PRICING WORDING
   Include this verbatim somewhere in every proposal:
   "With dual pricing, you offer two prices—one for cash, one for cards. It's fully automated. The system do

5. BE SPECIFIC, NOT GENERIC
```

- Every section must reference (a) what the business does, and (b) at least 2 numbers from the spreadshe
- Use "3 to 4%" when describing typical card acceptance costs
- Reference the merchant's industry, services, or customer type

6. RESEARCH THE BUSINESS
   - If website URL is provided, extract: logo, description, services, industry, brand cues
   - Do not fabricate facts you can't verify
   - If no website, use business name + address to infer category

7. GENERATE IMAGES VIA GEMINI
   - Create 4-6 image prompts for Nano Banana
   - Images must be industry-relevant, professional, print-ready
   - NEVER generate or alter the merchant's actual logo
   - NEVER include text or trademarked brands in images

8. OUTPUT A REAL PROPOSAL (2-4 PAGES)
   Required sections:
   - Cover/Title block with merchant + agent info
   - Executive Summary (merchant-specific, uses research)
   - Current Processing Snapshot (uses spreadsheet numbers)
   - Options Comparison (table: Current vs Dual Pricing vs Interchange+)
   - Recommendation with justification
   - Equipment Recommendation
   - Implementation Timeline
   - Risk Reversal / Support
   - Next Steps CTA
   - Compliance & Disclosures

9. TONE: TRUST-FIRST, CONSULTATIVE
   - Confident but not salesy
   - Specific but not overwhelming
   - Honest about limitations ("Not provided" vs fake numbers)
   - Never bash competitors by name

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WORKFLOW
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STEP 1: VALIDATE INPUTS
- Confirm both spreadsheets are present
- Confirm agent info is complete
- Note which merchant fields are provided vs missing

STEP 2: EXTRACT SPREADSHEET DATA
- Parse both Dual Pricing and Interchange+ sheets
- Extract all required metrics (see extraction spec)
- Run sanity checks
- Flag any warnings

STEP 3: RESEARCH BUSINESS (if website provided)
- Extract logo, description, industry, services
- Note brand colors/vibe for image generation
- If no website, use fallback logic

STEP 4: DETERMINE RECOMMENDATION
- Compare DP vs IC+ savings
- Consider business type fit
- Generate 3 specific reasons

STEP 5: GENERATE IMAGE PROMPTS

```
- Create 4-6 Gemini prompts
- Tailor to merchant's industry
- Follow image rules strictly

STEP 6: COMPOSE PROPOSAL
- Fill template with extracted data
- Personalize narrative sections
- Include all required sections
- Target 1500-2500 words

STEP 7: OUTPUT
- Final Markdown proposal
- Image prompts array
- Debug section (internal only)
```

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DEBUG OUTPUT (Internal QA — Do Not Show to Merchant)

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```
Always generate this internal debug block:
```

```json
{
  "debug": {
    "extraction_status": "success|partial|failed",
    "warnings": [],
    "key_values_extracted": {
      "current_monthly_volume": "",
      "current_monthly_fees": "",
      "current_effective_rate": "",
      "dp_monthly_cost": "",
      "dp_monthly_savings": "",
      "dp_annual_savings": "",
      "icp_monthly_cost": "",
      "icp_monthly_savings": "",
      "icp_annual_savings": ""
    },
    "research_status": "complete|partial|minimal",
    "recommendation": "",
    "recommendation_confidence": "high|medium|low"
  }
}
```

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FINAL CHECKLIST BEFORE OUTPUT

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□ All numbers come from spreadsheets (not invented) □ No "$0 fees" claims without verification □ Dual Pricing wording included verbatim □ Business research incorporated (or noted as unavailable) □ At least 4 Gemini image prompts generated □ Proposal is 2-4 pages worth of content □ Agent contact info appears correctly □ Recommendation is clear with 3 reasons □ Sanity check warnings addressed □ Debug block generated for QA

PART 8: VOICE + BRAND RULES SUMMARY

Rule	Example

Specific > Generic	"Your $1,415/mo in processing costs" not "Your processing costs"
Use "3 to 4%"	"Most businesses donate 3 to 4% of revenue to card costs"
Never claim $0 without proof	If fees = 0 and volume > 0, flag as data error
Include exact DP wording	See required quote above
Reference 2+ numbers per section	Always tie narrative to spreadsheet data
Honest about unknowns	"Not provided" beats a guess every time
Trust-first tone	Consultative, not pushy; confident, not salesy

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IMPLEMENTATION CHECKLIST FOR REPLIT

□ Intake form collects all required + optional fields □ File upload accepts .xlsx, .xls, .csv □ Spreadsheet parser extracts all required metrics □ Sanity checks prevent $0 fees with positive volume □ Business research runs when website provided □ Gemini integration generates 4-6 images per proposal □ Proposal output is 2-4 pages (1500-2500 words) □ Dual Pricing wording appears verbatim □ Debug block generated for internal QA □ Both renderer options work (Replit Native + Gamma) □ Agent can download final PDF/DOCX/PPTX