

# AIBurn - AI Token Cost Calculator PRD

## Product Requirements Document (PRD)

### AI Token Cost Calculator - "AIBurn"

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#### 1. Executive Summary

##### Product Overview

AIBurn is a free web-based calculator that helps AI founders and developers discover if they're overpaying for AI API tokens by comparing costs across 9 major AI models (OpenAI, Anthropic, Groq, DeepSeek).

##### Business Objectives

- **Primary:** Generate \$2,000-5,000/month in advertising revenue within 30 days of launch
- **Secondary:** Build email list of 1,000+ AI founders for future product launches
- **Tertiary:** Drive qualified leads to Howstud.io AI consulting services and AI Receptionist product

##### Success Metrics (90 Days Post-Launch)

- 10,000+ unique visitors
  - 2,000+ calculator uses
  - 5-8 sponsor slots sold at \$299-999/month
  - 500+ social shares
  - 200+ email subscribers
-

## 2. Target Audience

### Primary Users

#### AI Startup Founders & Solo Developers

- Building AI-powered products
- Using OpenAI/Anthropic APIs regularly
- Monthly AI spend: \$500-5,000
- Pain point: Unpredictable costs, no visibility into optimization opportunities
- Tech-savvy, active on X/Twitter, Reddit (r/LangChain, r/OpenAI)

### Secondary Users

#### Engineering Managers & CTOs

- Managing teams using AI APIs
- Monthly AI spend: \$5,000-50,000+
- Pain point: Need to justify/optimize AI budgets
- Decision-makers for enterprise tools

### Sponsor Audience

#### B2B SaaS Companies Targeting Developers

- Developer tools, AI platforms, boilerplates, courses
- Budget: \$299-1,499/month for targeted advertising
- Pain point: Hard to reach high-intent AI founders efficiently

## 3. Product Features

### 3.1 Core Features (MVP - Launch Week)

#### A. Quick Cost Calculator

##### User Flow:

1. User selects their current AI model from 9 options
2. Adjusts token usage slider (1M-200M tokens/month)
3. Clicks "Calculate My Costs"
4. Sees current monthly cost + all alternatives ranked by savings

#### **Technical Requirements:**

- Client-side calculation (no backend needed)
- Real-time updates as slider moves
- Mobile-responsive design
- Load time: <2 seconds

#### **Data Requirements:**

- Accurate pricing per 1M tokens (input/output separate)
- Model metadata: provider, quality tier, speed rating
- Source attribution links to official pricing pages
- Last updated timestamp

## **B. Results Display**

#### **Must Show:**

- Current monthly cost (large, prominent)
- Token breakdown (input/output)
- Current model details (quality, speed, provider)
- 8 alternative models sorted by savings potential
- Each alternative shows:
  - Cost per month
  - Savings amount & percentage
  - Quality/speed tradeoffs
  - Pricing per 1M tokens

### **Edge Cases:**

- Handle models more expensive than current (show as "more expensive")
- Handle very low usage (<1M tokens)
- Handle very high usage (>200M tokens)

## **C. Social Sharing**

### **Share on X (Twitter):**

- Pre-populated tweet text
- Current cost + potential savings
- Link to tool
- One-click sharing

### **Download Report (Placeholder):**

- Button exists, shows "coming soon" alert
- Future: Generate PNG/PDF report

## **D. Pricing Reference Table**

### **Always Visible:**

- Complete pricing table for all 9 models
- Sortable columns (optional)
- Shows: Model name, provider, input/output costs, quality tier
- "Last updated: [date]" disclaimer
- Links to verify official pricing

## **3.2 Monetization Features**

### **A. Multi-Tier Ad System (8 Total Slots)**

#### **Premium Tier:**

1. **Header Banner** - \$1,499/mo

- Full-width placement above fold
- 100% visibility on every page load
- Banner format (horizontal)

## 2. **Sidebar Premium** - \$999/mo

- Top sidebar position
- Static (no rotation)
- Large card format
- Always visible on desktop

### **Featured Tier:**

#### 3-5. **Featured Rotating** (3 slots) - \$499/mo each

- Sidebar placement below premium
- Auto-rotate every 10 seconds
- Large card format
- 33% visibility share per sponsor

### **Standard Tier:**

#### 6. **In-Content Top** - \$399/mo

- Appears between calculator and results
- Banner format
- Only visible after calculation

## 1. **In-Content Bottom** - \$299/mo

- Appears after all results
- Banner format
- High engagement point

## 2. **Footer Banner** - \$199/mo

- Full-width at page bottom
- Last impression before exit

- Banner format

## B. Ad Management System

### Plug-and-Play Configuration:

- All ads configured in single JavaScript object
- No database required
- Fields per ad:
  - `active`: true/false (turn on/off instantly)
  - `sponsor`: {name, url, tagline, logo}
  - `price`: monthly rate (for reference)
  - `color`: gradient theme

### Sponsor Onboarding Process:

1. Receive payment + details via email
2. Update sponsor object in code:

```
sidebarPremium: {
  active: true,
  sponsor: {
    name: "ShipFast",
    url: "https://shipfa.st",
    tagline: "Launch SaaS in days",
    logo: "🚀"
  }
}
```

3. Git commit + push
4. Auto-deploys to production (Vercel)
5. Live in ~2 minutes

## C. Ad Inventory Dashboard (Sidebar)

### **Real-time Display:**

- Total slots: 8
- Available slots: [auto-count]
- Sold slots: [auto-count]
- Starting price: \$199/mo
- Estimated reach: 10,000+ monthly
- CTA: "View All Slots" → email link

### **Available Slot Promotion:**

- Empty slots show as "Your Product Here"
- Display their price
- Show value prop
- CTA: "Buy \$X/mo" → email link

## **3.3 Future Features (Post-Launch)**

### **Phase 2 (Week 2-4)**

- **Exact Usage Mode:** Real API integration with OpenAI/Anthropic
- **Email Capture:** "Get monthly AI cost reports"
- **Historical Tracking:** Save calculations, compare over time
- **Cost Alerts:** Email when costs exceed threshold

### **Phase 3 (Month 2-3)**

- **Multi-Account:** Track multiple projects/API keys
- **Team Features:** Shared dashboards for organizations
- **Budget Forecasting:** Project future costs based on growth
- **API:** Let other tools integrate our pricing data

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## **4. Technical Specifications**

## 4.1 Tech Stack

### Frontend:

- React 18+ (functional components with hooks)
- Tailwind CSS (utility classes only)
- Lucide React (icons)
- No external dependencies beyond basics

### Hosting:

- Vercel (free tier to start)
- Auto-deploy from GitHub
- Custom domain: aiburn.howstud.io
- SSL/HTTPS included

### Analytics:

- Google Analytics 4 or Plausible
- Track: page views, calculator usage, ad clicks, social shares

### No Backend Required (MVP):

- All calculations client-side
- No user accounts
- No database
- Static site deployment

## 4.2 Performance Requirements

- Initial load: <2 seconds
- Time to interactive: <3 seconds
- Lighthouse score: 90+ (Performance)
- Mobile-friendly (responsive design)
- Works on all modern browsers (Chrome, Safari, Firefox, Edge)

## 4.3 Data Management

### Pricing Data Storage:

- Hardcoded in React component
- Update manually when providers change prices
- Include "last updated" date
- Document source URLs for verification

### No User Data Storage:

- API keys entered but never stored
- Calculations happen client-side only
- No cookies (except analytics)
- GDPR-friendly by default

## 4.4 Security

- HTTPS only
- No API key transmission (client-side calc)
- No user data collection
- Safe external links (`rel="noopener noreferrer"`)
- Content Security Policy headers

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# 5. Design Specifications

## 5.1 Visual Design

### Brand Colors:

- Primary: Purple ( `#9333EA` )
- Secondary: Blue ( `#3B82F6` )
- Accent: Green ( `#10B981` ) for savings
- Neutral: Gray scale for text/backgrounds

## **Typography:**

- Headings: Bold, large (text-4xl to text-5xl)
- Body: text-base to text-lg
- Small text: text-sm to text-xs
- Font: System fonts (Tailwind default)

## **Layout:**

- Max width: 7xl (1280px)
- Sidebar: 320px (lg:w-80)
- Spacing: Consistent 4/8/12/16px grid
- Rounded corners: xl to 3xl (very modern)
- Shadows: xl for cards (depth)

## **5.2 Component Design**

### **Calculator Card:**

- White background
- Rounded-3xl corners
- Shadow-xl
- 8px padding
- Model selection: Grid of clickable cards
- Token slider: Purple accent color
- Calculate button: Full-width, purple, prominent

### **Results Display:**

- Gradient card (purple to blue) for current costs
- White cards for alternatives
- Green badges for savings
- Red badges for more expensive

- Hover states on all interactive elements

#### **Ad Cards:**

- Gradient backgrounds (customizable per sponsor)
- Large emoji/logo (5xl size)
- White text
- Rounded corners (2xl-3xl)
- Clear CTA buttons
- Available slots: Dashed border overlay

### **5.3 Mobile Responsiveness**

#### **Breakpoints:**

- Mobile: <768px (stack layout)
- Tablet: 768-1024px (partial stack)
- Desktop: >1024px (full sidebar layout)

#### **Mobile Adaptations:**

- Hide sidebar ads (show 1-2 max)
- Stack calculator inputs vertically
- Reduce font sizes slightly
- Full-width buttons
- Collapsible sections for results

## **6. User Flows**

### **6.1 Primary Flow: Quick Calculator**

1. **Landing:** User arrives from X/Reddit/Google
2. **Scan:** Sees headline, value prop, calculator
3. **Select:** Chooses their current model

4. **Adjust:** Moves token slider to match usage
5. **Calculate:** Clicks "Calculate My Costs"
6. **Review:** Sees current cost + 8 alternatives
7. **Share:** Clicks "Share on X" or saves screenshot
8. **Exit:** Leaves with awareness of savings opportunity

#### **Exit Points:**

- Check out Howstud.io (other tools link)
- Click sponsor ad (monetization)
- Share on social (virality)

## **6.2 Secondary Flow: Sponsor Inquiry**

1. **Notice Ad:** User sees available ad slot
2. **Click CTA:** "Buy \$X/mo" button
3. **Email:** Opens pre-filled email to [ads@howstud.io](mailto:ads@howstud.io)
4. **Negotiate:** Email conversation about placement/timing
5. **Purchase:** Payment via invoice (Stripe/PayPal)
6. **Onboarding:** Provide logo, tagline, URL
7. **Go Live:** Ad appears within 24 hours

## **6.3 Viral Flow: Social Sharing**

1. **Calculate:** User gets their results
  2. **Surprised:** "Wow, I could save \$847/month!"
  3. **Share Button:** Clicks "Share on X"
  4. **Tweet:** Pre-populated with their savings + link
  5. **Post:** Shares to their followers
  6. **Loop:** Their followers visit, repeat cycle
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## 7. Go-To-Market Strategy

### 7.1 Launch Strategy (Week 1)

#### Day 1: Build + Deploy

- Finish development
- Deploy to aiburn.howstud.io
- Test all features
- Set up analytics

#### Day 2-3: Get Testimonials

- Outreach to 10-15 AI founders on X/Reddit
- Script: "I built a free AI cost calculator. Would you test it and let me know if the savings estimates are accurate? I'll feature you in the launch if you're cool with it."
- Target: Get 5-7 real testimonials with screenshots

#### Day 4: Launch Tweet

- Quote a recent viral tweet about AI costs
- Format: "Most devs don't know what they're spending on AI tokens. I asked 5 founders to check theirs. Average waste: \$847/month. Free calculator: [link]"
- Include testimonial screenshots
- Post at 9am PST (peak tech Twitter time)

#### Day 4: Reddit Posts

- r/SideProject: "I built a free AI cost calculator [Show & Tell]"
- r/Entrepreneur: "Free tool: Are you overpaying for AI tokens?"
- r/OpenAI, r/LangChain: "PSA: You might be overpaying for tokens"
- IndieHackers: Post + engage in comments

#### Day 5-7: Engagement

- Reply to every comment/tweet

- Share updates: "1,000 people checked their costs today 🎉"
- If viral: Add more content (blog post, video walkthrough)

## 7.2 Traffic Sources

### **Primary:**

- X/Twitter (viral launch tweet)
- Reddit (targeted subreddits)
- IndieHackers (founder community)

### **Secondary:**

- Product Hunt (week 2)
- Hacker News (if relevant)
- LinkedIn (B2B angle)
- AI newsletters (pitch for inclusion)

### **Organic:**

- SEO for "AI cost calculator", "OpenAI pricing comparison"
- Backlinks from AI blogs/communities
- Word of mouth from users

## 7.3 Sponsor Acquisition

### **Outbound:**

- DM successful indie products on X
- Target: SaaS boilerplates, AI tools, dev courses
- Pitch: "I just launched an AI cost calculator. Got 5K visitors in 3 days. Want to sponsor for \$299/mo? Reach 10K+ AI founders."

### **Inbound:**

- Prominent "Advertise" links throughout site
- Ad inventory dashboard in sidebar

- Footer link: "X slots available"
- Scarcity: Raise prices as slots fill

### Pricing Strategy:

- Week 1: All slots \$199-999 (base prices)
  - Week 2: Raise prices on unsold slots by 50%
  - Week 3: Raise again if demand exists
  - Week 4: Waitlist for next month
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## 8. Success Metrics & KPIs

### 8.1 Usage Metrics

- **Unique Visitors:** 10,000+ (month 1)
- **Calculator Usage Rate:** 20%+ (visitors who calculate)
- **Return Visitors:** 10%+ (come back to check again)
- **Avg Session Duration:** 2+ minutes
- **Bounce Rate:** <60%

### 8.2 Virality Metrics

- **Social Shares:** 500+ (X, LinkedIn, Reddit)
- **Backlinks:** 50+ (from blogs, forums, newsletters)
- **Viral Coefficient:** 1.2+ (each user brings 1.2 more)
- **Launch Tweet Performance:** 100K+ views, 500+ likes

### 8.3 Revenue Metrics

- **Ad Slots Sold:** 5-8 slots (month 1)
- **Monthly Recurring Revenue:** \$2,000-5,000 (month 1)
- **Average Ad Price:** \$400-600
- **Slot Fill Rate:** 60%+ (5/8 slots)

- **Sponsor Retention:** 80%+ renew after month 1

## 8.4 Lead Generation Metrics

- **Email Signups:** 200+ (when added in phase 2)
- **Howstud.io Referrals:** 100+ clicks
- **AI Receptionist Leads:** 20+ qualified inquiries
- **Consulting Inquiries:** 5+ (from calculator traffic)

## 8.5 Technical Metrics

- **Uptime:** 99.9%+
  - **Page Load Time:** <2 seconds
  - **Mobile Traffic:** 30-40% of total
  - **Error Rate:** <0.1%
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# 9. Risks & Mitigations

## 9.1 Technical Risks

**Risk:** Pricing data becomes outdated

**Mitigation:** Monthly review process, "last updated" disclaimer, links to official sources

**Risk:** Site goes down during viral moment

**Mitigation:** Vercel auto-scales, monitor uptime, have backup hosting ready

**Risk:** Calculator has bugs/errors

**Mitigation:** Test with real users pre-launch, add error handling, clear validation

## 9.2 Business Risks

**Risk:** Nobody wants to buy ads

**Mitigation:** Launch with traffic first, prove value, start with low prices (\$199), offer testimonials from early sponsors

**Risk:** Doesn't go viral

**Mitigation:** Don't rely solely on virality, use multiple traffic sources, consistent

posting, SEO optimization

**Risk:** Competitors copy the idea

**Mitigation:** Speed to market, build brand, add unique features (API integration), own the domain/brand

## 9.3 Legal/Compliance Risks

**Risk:** Pricing accuracy disputes

**Mitigation:** Clear disclaimers, link to official sources, "estimates only" language, regular updates

**Risk:** Sponsor disputes (impressions/clicks)

**Mitigation:** Implement analytics tracking, provide monthly reports, set clear expectations upfront

**Risk:** API provider terms violation

**Mitigation:** Review OpenAI/Anthropic TOS, don't store API keys, comply with usage policies

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## 10. Timeline & Milestones

### Phase 0: Pre-Launch (Days 1-2)

- Complete development
- Deploy to aiburn.howstud.io
- Set up DNS/SSL
- Install analytics
- Test all features
- Prepare launch materials

### Phase 1: Launch Week (Days 3-9)

**Day 3-4:** Get testimonials (5-7 founders test it)

**Day 5:** Public launch (X, Reddit, IndieHackers)

**Day 6-7:** Engage, respond, share updates

**Day 8-9:** Monitor metrics, fix bugs, optimize

### **Success Criteria:**

- 1,000+ visitors
- 100+ calculations
- 50+ social shares
- 1-2 sponsor inquiries

## **Phase 2: Growth (Weeks 2-4)**

### **Week 2:**

- Product Hunt launch
- First sponsor onboarded
- Add email capture
- Blog post: "I analyzed 1,000 AI cost calculations"

### **Week 3:**

- 3-4 sponsors onboarded
- Start building exact usage mode
- Guest posts on AI blogs
- Revenue: \$1,000-2,000

### **Week 4:**

- 5+ sponsors onboarded
- Launch exact usage mode (real API)
- Revenue: \$2,000-4,000
- Email list: 100-200 subscribers

### **Success Criteria:**

- 10,000+ total visitors
- \$2,000+ MRR
- 5+ active sponsors

- Featured in 2-3 newsletters

## Phase 3: Scale (Months 2-3)

- All 8 ad slots filled
  - Increase prices (waitlist demand)
  - Premium features (historical tracking)
  - Team/enterprise features
  - Revenue: \$5,000-10,000/mo
- 

# 11. Open Questions & Decisions Needed

## Design Decisions

- ? Should we add dark mode?
- ? Video explainer on homepage?
- ? Animated demo/walkthrough?

## Feature Priorities

- ? Email capture: Add immediately or wait for traction?
- ? Real API integration: Build now or after launch?
- ? Multi-currency support (EUR, GBP)?

## Business Model

- ? Should we offer annual sponsor deals (discount)?
- ? Affiliate links to AI providers (OpenAI, Groq)?
- ? Premium tier (\$9/mo for advanced features)?
- ? White-label version for agencies/resale?

## Marketing

- ? Paid ads (Twitter, Google) or organic only?

- ? Influencer partnerships with AI YouTubers?
  - ? Partnership with ShipFast/other boilerplates?
- 

## 12. Appendix

### 12.1 Competitor Analysis

#### Existing Solutions:

1. **Official Pricing Pages** (OpenAI, Anthropic)
  - Weakness: No comparison, hard to calculate real costs
  - Our advantage: Side-by-side comparison, instant calculation
2. **Generic Cost Calculators**
  - Weakness: Outdated, limited models, no design
  - Our advantage: Current pricing, 9 models, modern UI
3. **Spreadsheets** (founders build their own)
  - Weakness: Manual, not shareable, no virality
  - Our advantage: Instant, visual, shareable

#### Unique Value Prop:

- Most comprehensive comparison (9 models)
- Transparent pricing with sources
- Beautiful, modern UI
- Instant, no signup required
- Built for sharing/virality

### 12.2 Pricing Data Sources

- OpenAI: <https://openai.com/pricing>
- Anthropic: <https://anthropic.com/pricing>
- Groq: <https://groq.com/pricing>

- DeepSeek: <https://deepseek.com/pricing>

**Update Schedule:** Monthly review, immediate update if major price changes announced

## 12.3 Contact & Support

- **General Inquiries:** [hello@howstud.io](mailto:hello@howstud.io)
  - **Sponsor Inquiries:** [ads@howstud.io](mailto:ads@howstud.io)
  - **Support:** (Add if needed in phase 2)
  - **Social:** @howstudio on X
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