Green Steel Pricing Engine: Presenter Cheat Sheet

Narrative Flow, Live Demo & Technical Defense

1. Narrative & Demo Flow

0:00 - 0:15   **The Hook (Problem/Solution)**
Start: The hurdle isn't making green steel—it is **pricing** it.
Goal: Move from **arbitrary markups** to a **transparent, market-linked engine**.

0:15 - 0:45   **The Methodology (Two Pillars)**
1. **Lifecycle-Based:** No upfront shock. Costs are amortized over project life.
2. **Segment-Smart:** We distinguish Automotive (High WTP) from Construction.

0:45 - 1:15   **The Live Demo (Web App)**

1. Setup	Select **HRC** + **Automotive**. Note Baseline Emission (2.36).	
2. Inputs	Enter Green Emission (**1.76**) -> Savings. Add Abatement (**5000**).	
3. Logic	We don't charge 5000 upfront. We amortize it over 15 years. Verify cost (₹200/ton) added. Apply multipliers (WTP: 1.3, Segment: 1.2, Allocation: 1.15).	
4. Export	Select **EU (CBAM)**. Carbon Price loads (6500).	
5. Result	Final Premium: ₹**13,079**. "Covers costs + captures global tax value."	

2. The Math (Technical Notes)

1. CO2 Savings
$\Delta E = E_{\text{baseline}} - E_{\text{green}}$ *Ex: 2.36 - 0.50 = 1.86 tCO2 saved.*

2. Amortized Abatement (The Floor)
$C_{\text{abate}} = \frac{P_{\text{cost}} \times \Delta E}{L_{\text{years}}}$ *We spread the ₹5000 CAPEX impact over the 15-year project life.*

3. Verification Cost
$C_{\text{ver}} = \frac{C_{\text{fixed}}}{V_{\text{annual}}}$ *Fixed overhead (₹20M) divided by volume (100k tons) = ₹200/ton.*

4. The Multiplier (Compound)
$M_{\text{total}} = M_{\text{wtp}} \times M_{\text{seg}} \times M_{\text{alloc}}$ *We multiply (don't add) to account for exponential complexity. Ex: 1.3 (WTP) × 1.2 (Auto) × 1.15 (Phys) = 1.79.*

5. Export Component (CBAM)
$P_{\text{exp}} = \Delta E \times P_{\text{carbon}} \times (1 - f_{\text{free}})$ *We add the avoided carbon tax to the price. If P_carbon is ₹6500 (EU), we capture that value.*

3. Anticipated Q&A

Q: Why is the premium for HRC different than TMT?
A: It is based on 'Baseline Emissions' and 'Willingness to Pay.' HRC has a higher baseline (more savings potential) and goes into Automotive (higher margin).

Q: Why are you compounding the multipliers? Isn't that inflating the price?
A: Multiplicative factors reflect exponential complexity. Delivering 'Physical' green steel to an 'Automotive' client is significantly harder than a certificate for construction.

Q: How does the model handle the 'Export' price difference?
A: It maintains parity. If a client buys dirty steel, they pay the CBAM tax. If they buy Green Steel, they pay us. The 'Total Cost of Ownership' is identical.

Q: Is the verification cost fixed? What if volume drops?
A: It is dynamic. Formula = Fixed Cost / Annual Volume. If volume drops, the per-ton premium rises to cover the fixed certification overhead.