✅ HVAC Replacement Decision Matrix

Each of the 10 signs is converted into an evaluation category.

Use this matrix to quickly identify whether the homeowner should Repair, Plan for Replacement, or Replace Now.

HVAC Replacement Decision Matrix (Qualitative Assessment)

Category	What to Look For	Impact if Present	Recommendation
1. System Age (10–15+ years)	Unit older than 12–15 years	Major — age strongly predicts failure & inefficiency	Replace or plan replacement soon
2. Frequent or Costly Repairs	>1 repair per year OR repair >30–40% of replacement cost	Major — indicates system decline	Replace
3. Expired Warranty	Warranty no longer valid	Moderate — future repairs fully out-of-pocket	Plan replacement
4. Rising Energy Bills	Noticeable year-over-year increase in utility costs	Major — signifies declining efficiency	Replace or upgrade
5. Inconsistent Temps / Poor Airflow / IAQ Issues	Hot/cold spots, humidity issues, dust, musty odors	Moderate–Major — comfort & health impact	Repair only if minor; otherwise replace
6. Strange Noises or Odors	Rattling, banging, burning or musty smells	Major — could indicate failure or hazards	Inspect immediately; likely replace
7. Outdated Technology / Missing Efficiency Upgrades	No variable-speed, no smart thermostat, low SEER/HSPF	Moderate — missing savings & rebates	Replace to access rebates/efficiency
8. Environmental Impact (Replace to access rebates/efficiency Efficiency)	Old system, high energy usage	Moderate — increased energy waste	Replace with efficient heat pump
9. Repair Costs vs. Replacement Economics	Repair cost close to 30–50% of replacement	Major — financially inefficient	Replace
10. Professional Inspection Findings	Technician identifies failures, inefficiency, or end-of-life	Major — expert confirmation	Replace

✅ HVAC Replacement Score Sheet (Quantitative Assessment)

This gives a numerical score out of 100, allowing the homeowner or tech to quantify the replacement need.

Scoring Method

Each category is weighted based on its importance:

Category	Weight (%)
1. Age	15
2. Repairs / Repair Cost	15
3. Warranty Status	5
4. Energy Bills / Efficiency	15
5. Comfort / IAQ / Airflow Problems	10
6. Noises / Odors	10
7. Outdated Technology / Rebates Missed	10
8. Environmental Impact (Low Efficiency)	5
9. Repair vs. Replace Economics	10
10. Technician Assessment	5
TOTALS	100

📝 Score Sheet (Circle One per Category)

1. System Age (15 pts)

- 0 pts – Less than 8 years
- 5 pts – 8–12 years
- 10 pts – 12–15 years
- 15 pts – 15+ years

2. Frequency/Cost of Repairs (15 pts)

- 0 pts – No repairs in last 2 years
- 5 pts – 1 repair in last year
- 10 pts – 2+ repairs in last year
- 15 pts – Any repair >30–40% of replacement cost

3. Warranty Status (5 pts)

- 0 pts – Warranty active
- 5 pts – Warranty expired

4. Rising Energy Bills (15 pts)

- 0 pts – Bills stable
- 5 pts – Slight increase
- 10 pts – Noticeable increase year-over-year
- 15 pts – Significant increase or system running constantly

5. Comfort / IAQ / Airflow (10 pts)

- 0 pts – No issues
- 5 pts – Minor uneven temps
- 10 pts – Major uneven temps, humidity issues, dust, odors

6. Noises / Odors (10 pts)

- 0 pts – Quiet, normal
- 5 pts – Occasional noises
- 10 pts – Persistent banging, rattling, burning/musty smells

7. Outdated Technology (10 pts)

- 0 pts – Modern & efficient (variable speed, smart thermostat)
- 5 pts – Mid-efficiency, no smart features
- 10 pts – Old tech, low efficiency, missing rebate opportunities

8. Environmental Impact (5 pts)

- 0 pts – High-efficiency unit
- 5 pts – Low-efficiency unit / high energy usage

9. Repair vs. Replace Economics (10 pts)

- 0 pts – Repairs inexpensive
- 5 pts – Repair cost approaching 20% of replacement
- 10 pts – Repair cost >30–40% of replacement

10. Technician Assessment (5 pts)

- 0 pts – Technician recommends repair
- 5 pts – Technician recommends replacement

⭐ Scoring Interpretation

Total Score	Recommendation
0–30	Repair is appropriate. System has life left.
31–60	Borderline. Begin budgeting & planning for replacement.
61–100	Strongly recommended to replace system. Efficiency, reliability, or cost issues high.