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Common heating, ventilation, and air-conditioning (HVAC) problems and solutions

Presenter:

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NOVEMBER 11, 2025

Save on Energy Business Program Suite 2025 Fall Webinar Series

Overview of the business program suite

Vicki Gagnon

Business Advisor, Public Sector and Agriculture

Power System Development

SOE Business Program Suite: Province-wide Programs

	All Businesses			Medium to Large Businesses			Small Businesses	
	Retrofit Program	Instant Discounts Program (IDP)	Energy Performance Program (EPP)	New Industrial Program	Existing Building Commissioning Program (EBCx)	Expanded Energy Management Program (EEM)	Peak Perks Program	Small Business Program (SBP)
Offer	Incentive	Point of Sale Discount	Incentive	Incentive	Incentive	Incentive + training	Incentive	Direct Install
Benefits	Incentives for upgrades covering ≤50% of eligible project costs	Discounted lighting upgrades at point of sale	- Performance Incentives: \$0.15/kWh for summer peak savings \$0.04/kWh for off-peak savings	up to \$15 million Incentives for each large industrial project	- Investigation incentives ≤\$0.06/sq ft - Implementation incentives ≤\$0.03/kWh - Persistence incentives ≤\$0.03/kWh	- EM Training \$0.02/kWh Saving Incentives ≤\$5,000 Milestone Incentives ≤\$100k/year for hiring Energy Manager ≤\$250k to install EMIS	\$75 prepaid virtual Mastercard[®] upon enrolment - Additional \$20 virtual prepaid Mastercard[®] each year of participation	≤\$3,000 in lighting upgrades ≤\$2,500 in non-lighting upgrades

Existing Building Commissioning Program (EBCx)

Eligibility

- At least 12 consecutive months of energy data
- Annual electricity use of at least **750,000 kWh**
- Up to **\$150,000** in incentives for hiring qualified providers to recommission buildings
- Must use authorized Commissioning Provider



How it works The program includes 3 incentive phases:

Investigation

- Up to **\$0.06/sq ft**, max \$50,000 or 75% of costs

Implementation

- **\$0.03/kWh** of confirmed energy savings, up to 30% of annual use or \$50,000

Persistence

- **\$0.03/kWh** of persisting savings, up to 30% of annual use or \$50,000

[Program Website](#)



Commercial



Government /
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Energy Performance Program (EPP)

A comprehensive program for customers managing their energy use actively; rewards businesses for achieving measurable energy savings over time.

Ideal for organizations that want flexibility in how they save energy, and who are ready to track those savings at the facility level.



 [Program Website](#)

Benefits

- EPP portal: customer no longer has to develop baseline energy model and annual savings report
- incented for the savings **each year over 3 years**
- **\$0.15/kWh** incentive for electricity savings during summer peak hours and **\$0.04/kWh** for off-peak



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Retrofit Program

Businesses can upgrade equipment with financial incentives to help reduce energy use and costs and improve productivity.

Benefits

- Covers up to **50% of eligible project costs**
- **Prescriptive Stream:** streamlined incentives for commonly used products suitable for typical equipment upgrades (e.g., lighting controls, HVAC, solar PV)
- **Custom Stream:** \$1,800/kW or \$0.20/kWh for complex, non-standard projects

Key Measures

- Variable speed drives, compressed air, motors



[Program Website](#)



Agricultural



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Industrial /
Manufacturing



Multi-family
Building

Retrofit Program – Solar DER Rooftop Solar PV

Now Available Across Ontario

Prescriptive incentives covering up to 50% of eligible project cost for load displacement-only Solar Photovoltaic (PV) rooftop generation including:

1. **Micro-generation** projects up to **10 kW-DC** are eligible for **\$1,000/kW-DC**
2. **Small/medium** generation projects greater than **10 kW-AC up to 1 MW-AC** are eligible for **\$860/kW-AC***



Instant Discounts Program (IDP)

Receive upfront discounts from participating distributors on the purchase of energy-efficient lighting products.



[Program Website](#)

Benefits

- Instant, point-of-sale discounts on energy-efficient lighting
- No paperwork or waiting — just buy and save

Key Measures

- High/Low Bay Fixtures, Linear Fixtures, Lighting Controls



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Multi-family
Building



Expanded Energy Management Program (EEM)

This program is offered by Save on Energy with financial support for industrial facilities from Natural Resources Canada (NRCan) as part of its [Green Industrial Facilities and Manufacturing Program](#).



Benefits

Commercial, Institutional and Industrial Customers

- Energy Manager support: Up to **\$100,000/year** toward hiring an Energy Manager
- Strategic Energy Management (SEM): Training and coaching to embed energy management practices
- Incentives: **\$0.02/kWh** for verified, non-incented savings up to **\$100,000** per year; up to **\$5,000** for energy tools (e.g. meters, testing kits) through milestone incentives



[Program Website](#)



Agricultural



Commercial

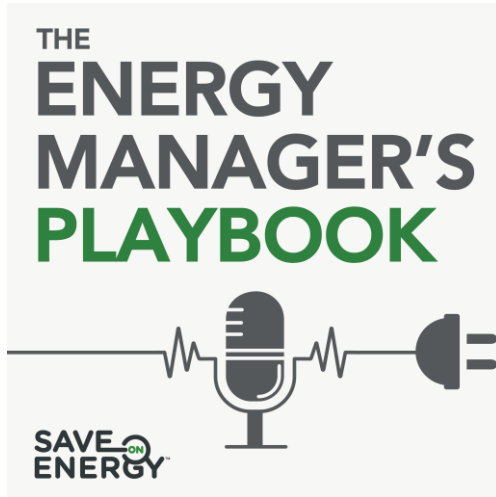


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A podcast by Save on Energy: The Energy Manager's Playbook



Questions or feedback?
trainingandsupport@ieso.ca

Presented by IESO's Save on Energy training and support team:

- ☐ Features real-world stories from Ontario's energy management community
- ☐ Covers the industrial, institutional, commercial and municipal sectors
- ☐ Focused on challenges, successes and practical insights
- ☐ Bite-sized episodes for quick and impactful learning
- ☐ A resource for energy professionals and decision-makers

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saveonenergy.ca/training-and-support/podcast



Agenda

1. Welcome and introduction
2. Mechanical and electrical issues
3. Airflow, refrigerant and control issues
4. Preventative maintenance strategies and savings
5. Conclusion

Objectives

1. Identify common mechanical and electrical failures in HVAC systems
2. Identify common airflow, refrigerant and control-related issues in HVAC systems
3. Understand the diagnostic techniques and tools used to resolve HVAC issues
4. Identify essential HVAC preventative maintenance tasks and understand how early detection of issues enhances system reliability, reduces operational costs and prevents equipment failures

Disclaimer

The material covered in this presentation may not be considered as recommendations that will prevent equipment failure. The material is provided only as guidance from publicly available sources.

Any intervention on HVAC systems must be performed by accredited personnel, including any electrical work, refrigerant and pressure vessel work, etc. Each owner and technical manager has the responsibility to ensure any HVAC work is completed in accordance with all adequate safety precautions and by properly trained personnel.

Introduction

- HVAC systems are becoming more and more complex, often with advanced control systems and numerous devices installed to improve their efficiency.
- Such complexity can improve performance but also increases the possible number of failure points in the system.
- Such failures have not only a direct impact on building operation, but also a significant impact on overall building energy, cost and greenhouse gas efficiency.
- Maintaining HVAC systems and diagnosing issues prior to failure is a crucial part of proper HVAC operation.



Mechanical and electrical issues

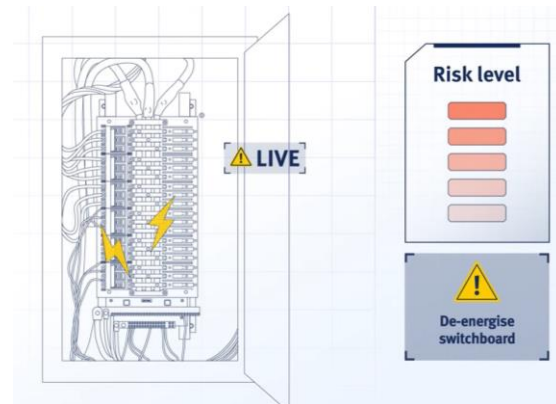
Electrical issues

- It is crucial to note that electrical issues should always be referred to a qualified electrician.
- Building operators, unless qualified as electricians, should NOT undertake any remedial work or even diagnostics that involve any interactions with electrical wiring, devices with exposed wiring, terminals, contactors, relays, etc.



Arc flash

- An arc flash at 575 volts constitutes a severe electrical hazard with the potential for extreme temperatures of up to 35,000°F, resulting in burns, blinding flashes and explosive pressure waves.
- Causes: human error, poor maintenance and environmental factors.
- Proper personal protective equipment (PPE) and strict safety procedures are essential to mitigate the risks
- <https://www.youtube.com/watch?v=HPUuRizKV3o&t=29s>



Common electrical issues

- Electrical issues often result in intermittent operation, short cycling, or system shutdowns.



Issue	Cause	Effects	Solutions
Blown fuses or tripped breakers (small loads)	Power surge or overloaded circuit	System will not start.	Check breaker panel; replace fuses; identify overload source.
Faulty contactor or relay	Wear or carbon buildup on contacts	System will not start, cycles frequently.	Replace worn contactors; ensure correct voltage and current.
Defective capacitor	Heat or age deterioration	Motor fails to start or hums.	Test capacitance with multimeter; replace faulty capacitor.
Loose wiring connections	Vibration or poor installation	Intermittent power loss, arcing or fire risk.	Tighten terminals; inspect during maintenance.
Thermostat malfunction (not BAS sensors)	Miscalibration or sensor failure	Inaccurate temperature control or short cycling.	Calibrate thermostats; replace if unresponsive.

Electric motor reliability

- Reduce unnecessary use
- Ensure proper operating conditions (temperature, dust, etc.)
- Provide good maintenance
- The leading cause of motor failure is heat:
 - 10°C temperature increase over the rated temperature = half the motor life
- Clean air vents
- Ensure voltages are balanced
- Avoid too many starts



Common fan/motor mechanical issues

Issues that result in inefficient operation, noisy operation and eventual failures

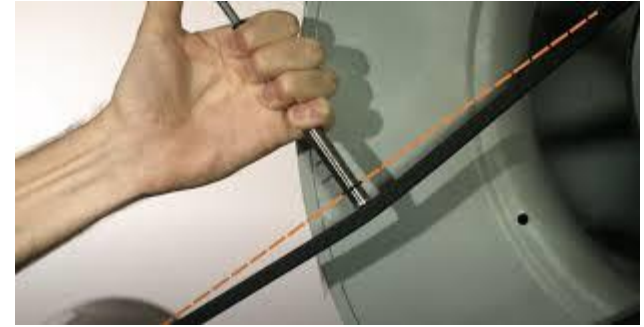
Issue	Cause	Effects	Solutions
Worn fan belts	Continuous operation and age cause stretching or fraying	Squealing noises, reduced airflow.	Inspect belts regularly; tighten or replace if worn.
Motor bearing failure	Lack of lubrication or dirt accumulation	Grinding noise, overheating, motor failure.	Lubricate bearings per manufacturer specifications; replace if damaged.
Blower motor failure	Electrical overload or debris obstruction	No airflow, inconsistent air movement.	Clean blower wheel; test capacitor and motor; replace if seized.
Damaged fan blades	Physical impact or imbalance	Vibration, noise, poor heat exchange.	Inspect and replace damaged blades; rebalance fan.
Belt misalignment	Improper installation/commissioning (Cx, initially or during retrofit)	Please refer to the next slide.	Need to verify alignment between motor and fan sheaves and adjust as needed.
Blower motor failure	Improper variable frequency drive (VFD) installation (too far away, no filter, motor not compatible)	Overheating of winding, leading to eventual failure.	Ensure VFD is installed as close as possible to motor, install adequate filter, use inverter-compatible motors.

Fan belt misalignment

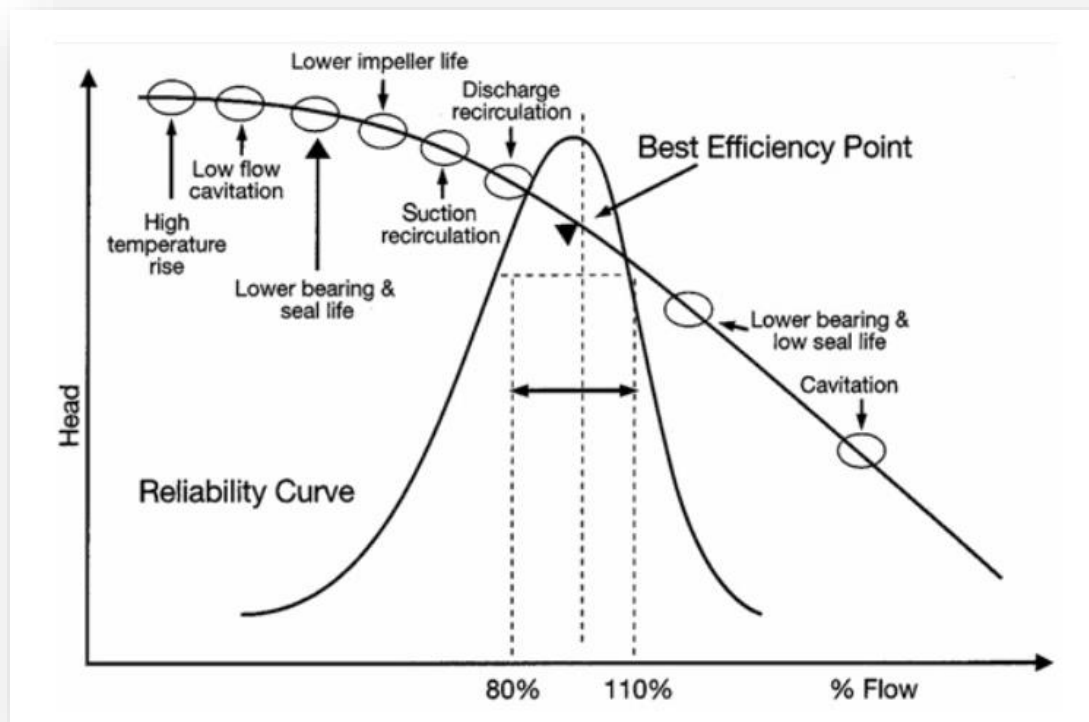
- Misalignment is a major problem when it comes to premature wear and failure of V-belts and sheaves.
- Misalignment increases belt wear and fatigue – possibly destroying it within hours or days. Signs of misalignment include:
 - **Premature belt failure:** Misalignment is one of the most common reasons belts fail prematurely.
 - **Excessive vibration:** If belts or sheaves are misaligned, excess vibration can be a common symptom.
 - **Premature and uneven sheave wear:** Both angular and parallel misalignment can lead to sheaves wearing prematurely.
 - **Belt dust:** If you see visual clues of something amiss such as belt shavings at the foot of the unit, you know to check for significant misalignment.
 - **Unequally stretched belts:** A misaligned drive may be the culprit. This can overload some belts and result in premature wear.
 - **Unexpected noise:** A squealing noise often indicates slippage between belts and pulleys.
 - **Tensile failure:** A common indicator of misalignment, tensile failure may be due to uneven cord loading.

Belt tension

- Belt slippage is a common consequence of a loose belt, which decreases efficiency and increases energy consumption. Overheating is caused by excessive friction when a belt fails to properly engage with the pulley.
- An overly tight belt creates excessive strain on the shaft, potentially pulling it out of alignment. The shaft may pull to one side, making it off-centre. This misalignment places additional stress on the bearings, causing premature failure.
- Use a belt tension gauge to verify the tension compared to design requirements.
- Too much flutter is indicative of improper tensioning (too loose).



Pump reliability: flow and efficiency



Source: <https://blog.craneengineering.net/pump-performance-curves-reliability>

VFD and motor failures

- Improperly installed VFDs can cause various failures related to the motor.
- Common failures include:
 - Bearing failure
 - Motor winding failure
 - Power quality issues

Bearing failures

- Electric motors fitted with VFDs are at risk of bearing damage due to a buildup of current in the rotor that discharges through the shaft, damaging the lubrication and bearing surfaces and producing harmful vibrations that eventually result in bearing failure.
- Symptoms of motor bearing failure:
 - The motor is noisy.
 - The body of the motor is getting hotter.
 - The bearing is vibrating.

Fluting: pits that form washboard-like ridges on a bearing race wall



Preventing VFD-induced bearing failure

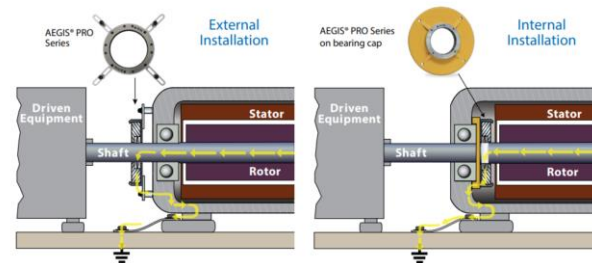
- Shaft grounding
- Grounding rings (≤ 100 hp)
- Insulated bearings
- Insulated motor housings
- Low-impedance grounding straps
- Most output filters do not resolve shaft current/bearing issues



INSULATED



NON-INSULATED



Motor winding damage and power quality

- Not using an inverter-rated motor: VFDs result in higher voltage peaks, which can damage the winding insulation of non-inverter rated motors.
- Insufficient motor cooling: running at low speeds may not provide enough airflow to cool the motor – verify the minimum safe operating speed.
- Long leads: install VFDs as close as possible to the motor, long leads result in high peak voltages and potential winding damage:
 - **Output filters (dV/dT) help mitigate this issue.**
- Power quality: VFDs can introduce harmonic distortion into the power system, which can cause issues like transformer overheating, circuit breaker trips, and penalties from utility companies.
- Harmonic filters on the input side reduce this distortion.

Thermostat issues

Common causes of malfunctions

1. **Power issues:**

- Dead or low batteries for battery-powered thermostats, while hardwired thermostats can suffer from tripped circuit breakers or power surges.

2. **Dirt and debris:**

- Dust and other debris can accumulate on internal thermostat sensors, leading to inaccurate temperature readings and a system that does not respond correctly.

3. **Incorrect placement:**

- Placing a thermostat near windows, doors, drafts or direct sunlight can cause incorrect temperature readings.

4. **Wiring problems:**

- Loose or damaged wiring can prevent the thermostat from receiving proper signals from the HVAC system.

Thermostat issues

Common causes of malfunctions

5. **Incorrect settings:**

- Simple user errors such as incorrect temperature settings or a thermostat set to the wrong mode (e.g. heating mode instead of cooling mode) can cause issues.

6. **Age:**

- Older, outdated thermostats become unreliable and prone to failure over time, and components eventually reach their end of useful life.

7. **Software/firmware glitches:**

- For smart or programmable thermostats, outdated or faulty software can cause malfunctions.



Overheating air-conditioner (AC) compressors

The usual culprits for overheating AC compressors include:

- Dirty coils and/or heat exchangers leading to high compression ratios (high-condensing temperature and/or low-evaporating temperatures)
- Improper refrigerant charges with undercharging and overcharging resulting in possible compressor overheating – refrigeration technician required
- Inadequate air or water flow at evaporator and/or condenser
- Improper lubrication (lubricant carried by the refrigerant)
- Insufficient cooling in the mechanical room
- Electrical issues – low voltage, imbalanced phases (requires electrician)
- Mechanical issue with the compressor – refrigeration technician required



Conducting diagnostics with an effective preventive maintenance strategy can resolve most problems!

Excessive noise during operation

- Some typical causes include loose parts, worn bearings, imbalanced fans or issues with ductwork such as restrictions or improperly secured duct sections.
- Symptoms include rattling, squealing, banging sounds or hissing/air noise.
- Solutions are to tighten parts, replace bearings, balance fans or inspect ductwork for restrictions, losses or loose sections.
 - Restrictions: Blockages or bends that increase velocity
 - Losses: Leaks or sections with poor insulation
 - Loose sections: Rattling from gaps, breaks or disconnected joints



Water leakage from condensate drain issues

- Common causes: clogged/disconnected drain lines, poor slope, damaged drain pan, algae buildup, failed pump
- Symptoms: water pooling, mould growth, ceiling stains
- Solutions: drain cleaning, pan checks, anti-algae tablets, UV treatment
- Mostly addressed through proper PM



Poor humidity control

- Causes: faulty humidifier/dehumidifier controls, faulty humidifier, improper settings not taking into consideration building envelope
- Symptoms: condensation on windows, cold envelope sections, mould (high relative humidity [RH]), dry skin, sore throat, static electricity, discomfort (low RH)
- Solutions: calibrate and verify controls, adjust setpoints based on quality of building envelope, maintenance of humidifiers





Airflow, refrigerant and control issues

Common refrigerant-related issues

Refrigerant issues directly impact system cooling capacity and efficiency.

Issue	Cause	Effects	Solutions
Low refrigerant charge (leak)	Line leaks, faulty valves, poor installation	Poor cooling, hissing noise, frozen evaporator coil.	Locate and repair leaks; recharge to manufacturer specifications.
Overcharged system	Incorrect charging during service	High pressure, compressor strain, inefficiency.	Recover excess refrigerant to correct charge.
Refrigerant contamination	Moisture, air or use of incorrect or mixed refrigerants	Sludge formation, poor lubrication, compressor failure.	Evacuate system; replace filtre-drier; recharge properly.
Expansion valve malfunction	Debris blockage or calibration error	Inconsistent cooling, icing, high superheat.	Clean or replace TXV/EXV; verify correct operation.

Refrigerant leak issues and low levels

- Causes: corroded coils, loose fittings, vibration damage
- Detection: gauges, leak detectors, frost on lines, frost on evaporator
- Impact: reduced cooling, higher energy costs

HVAC Air / Refrigerant Diagnostic Quick Sheet

* Indicates a key diagnostic indicator

Fixed Metering	Suction Pressure	Head Pressure	Super heat	Subcool	Comp. Amps	Δt
Low Charge	↓*	↓	↑*	↓	↓	↓
Over Charge	↑	↑	↓*	↑*	↑	Norm
Low Indoor Airflow/Low R/A Temp	↓*	Norm	↓*	Norm	Norm	↑
Dirty Condenser	↑	↑*	Norm	Norm	↑	↓
Liquid Line Restriction*	↓	Norm	↑*	Norm*	↓	↓
Oversized Piston	Norm	Norm	↓*	↓*	↓	Varies
High R/A Temp	↑*	↑	↑	Norm	↑	Norm

TXV System	Suction Pressure	Head Pressure	Super heat	Subcool	Comp. Amps	Δt
Liquid Line Restriction*	↓	Norm	↑*	Norm*	↓	↓
Overfeed / Loose Bulb Bulb uninsulated	↑	↓	↓*	↓	↓	↓
Low Charge Slightly	Norm	↓	Norm	↓*	↓	Norm
Over Charge Slightly	Norm	↑	Norm	↑*	↑	Norm
Low Indoor Airflow/Low R/A Temp	↓*	Norm	↓*	Norm	Norm	↑

<https://www.billyaircon.com.sg/6-signs-low-refrigerant-levels-ac/>

Frozen evaporator coils

- Causes: evaporating pressure is too low, usually due to restricted airflow, low refrigerant or dirty coils.
- Symptoms: ice buildup, low cooling capacity
- Solutions: check refrigerant level, check filters or other obstructions to airflow, clean coils.



Common airflow issues

These issues result in indoor air quality (IAQ) issues, possible energy inefficiency or comfort complaints.

Issue	Cause	Effects	Solutions
Clogged air filters	Dust, dirt and debris accumulation	Restricted airflow, overheating, frozen coil.	Replace or clean filters monthly (or per schedule).
Blocked or leaky ducts	Poor insulation, loose connections, debris	Uneven temperatures, reduced efficiency.	Inspect ductwork, seal leaks, clean ducts.
Dirty evaporator or condenser coils	Lack of cleaning or airborne contaminants	Reduced heat transfer, increased energy use.	Clean coils annually with appropriate cleaner.
Improper damper settings	Misadjusted or stuck dampers	Uneven airflow between zones.	Inspect and balance dampers for uniform distribution.
Closed or obstructed vents	Furniture or items blocking airflow	Hot/cold spots, reduced system efficiency.	Ensure all vents are open and unobstructed.

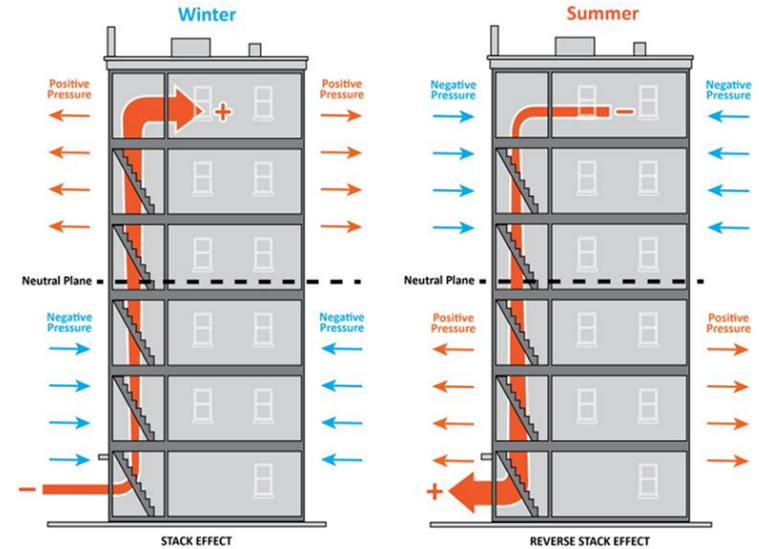
Terminal unit box malfunctions

- Type: variable air volume (VAV) boxes, fan-powered VAV boxes
- Common causes: stuck dampers, actuator failure, disconnected airflow sensor, improper control logic, failed space sensor
- Symptoms: too much airflow or no airflow, space setpoint not met
- Solutions: calibration, actuator checks



Negative air pressure

- Causes: often not under operation and maintenance (O&M) control, can be from exhaust > supply, flow imbalance
- Symptoms: door pressure issues, dust infiltration, drafts in some spaces
- Solutions: rebalance airflow to have more intake than exhaust, mechanical pressurization cannot compensate for a poor building envelope



Zone temperatures

- Causes: Poor distribution, faulty variable air volume (VAV) boxes, sensor placement, etc.
- Symptoms: Hot/cold complaints
- Solutions: Rarely through setpoint adjustment! System-specific; see the sample tool provided (for perimeter induction and interior VAV boxes)

Zone temperatures

Diagnostic Matrix

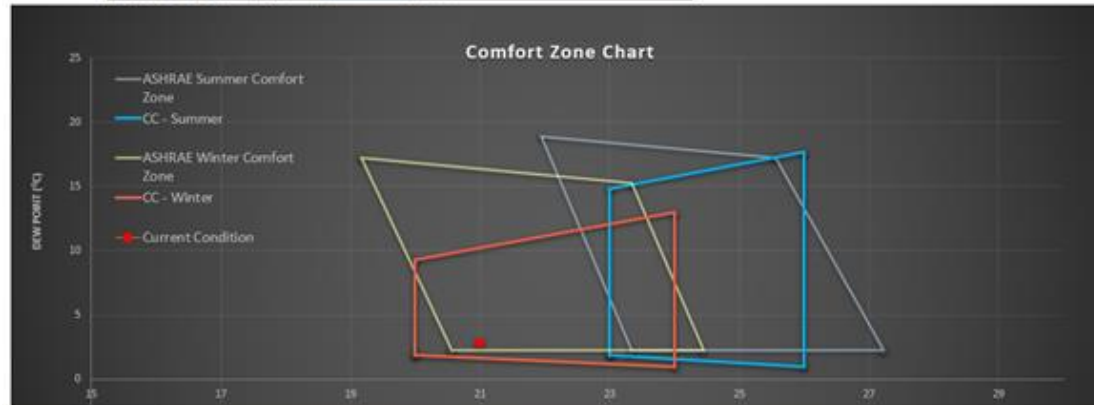
Complaint	Location	System Mode	Possible Reasons	Possible Causes to Investigate
Too Hot	Interior	Cooling	Low Supply Airflow	- Faulty VAV Box - Stuck Damper - Faulty VAV Box - Failed Motor - Faulty VAV Box - Failed Actuator - Faulty VAV Box - Leaky connection (primary) - Improper balancing - Diffuser improperly set or located

: Cells in BLUE are editable values

Measured Zone Temperature:	21 °C
Measured Zone Humidity:	30 % RH

How to use the Matrix

- Step 1:** Select the type of complaint received
- Step 2:** Indicate if it is in an interior or perimeter zone
- Step 3:** Indicate if the System serving the zone is in heating or cooling mode. Note that some system never go into a heating mode.
- Step 4:** A list of Possible Reasons for this complaint is listed, select each one to see what can cause the problem and needs to be investigated or considered.
- Step 5:** Enter the room temperature, and if available, the humidity to determine if the conditions are within the range prescribed by Commerce Court. In absence of Humidity readings, use 30% for winter conditions and 50% for summer conditions.



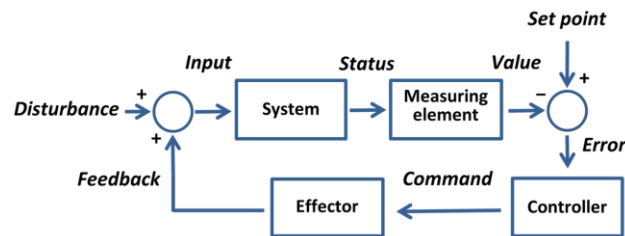
Controls issues

The number one rule with a BAS is to be wary of the information displayed, it may be incorrect:

- Specific BAS maintenance must be in place and must address critical sensors and control sequences.
- Do not blindly accept a service contract that is not specific on sensor calibration.
- Yearly (or more frequent) end-to-end tests of critical systems are required.

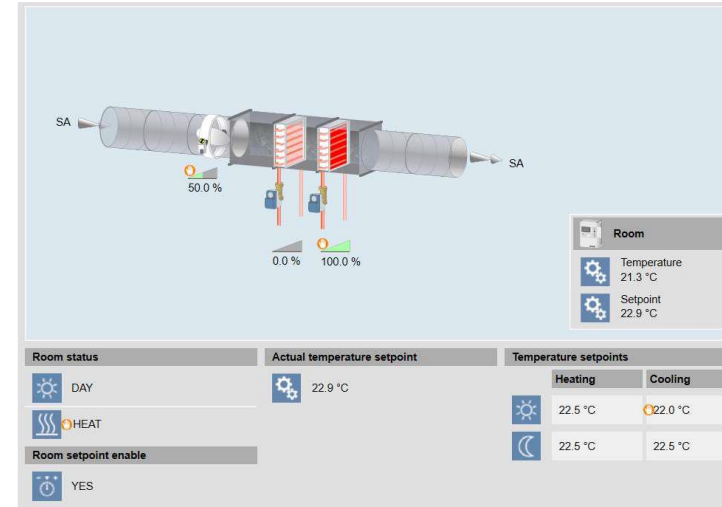
Inadequate setpoints or BAS logic

- Causes: improper BAS commissioning and/or maintenance, use of rules of thumb instead of actual testing and optimization
- Impact: inefficiency, comfort issues, poor control
(ex. short cycling, hunting, etc.)
- Solutions: revise setpoints using actual functional tests, proper commissioning and testing of control sequences and loops



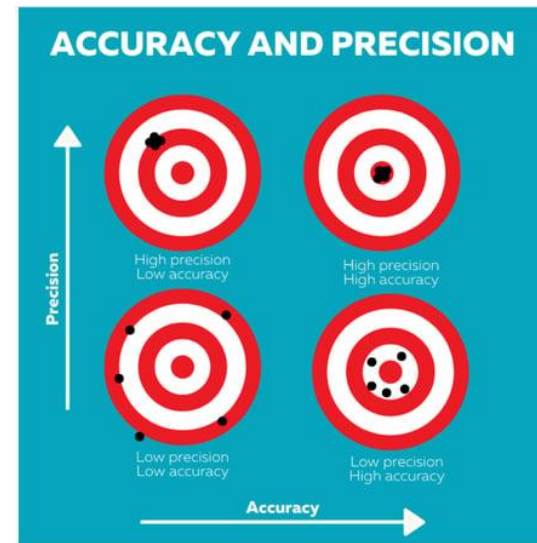
Overrides and lockout conditions

- Issue: overrides left on after troubleshooting, overrides permanently in place to solve a sensor or logic issue
- Impact: wasted energy, improper system response
- Solutions: address the root cause, not the symptoms; review mechanical operation of system, sensors and control logic



Sensor failures and inaccuracies

- Causes: age, location, wiring faults, calibration drift
- Symptoms: incorrect readings or no readings
- Solutions: have a proper maintenance plan!
Calibrate, clean, change sensor type, location, replace sensors





Maintenance

Preventive maintenance (PM)

- Preventive maintenance (PM) = proactive care, not reactive fixes
- Ensures comfort, safety and cost efficiency
- Implementing a proactive HVAC preventative maintenance plan can result in 5-20% savings on annual energy bills
- Regular maintenance can add five to eight years to HVAC system lifespans, delaying expensive replacements and major overhauls



Maintain performance through maintenance



HVAC systems can be strongly and negatively impacted by poor maintenance.



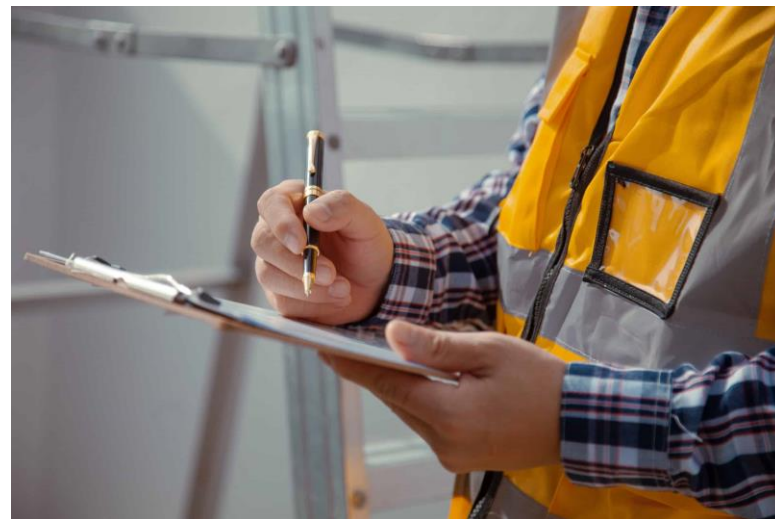
System efficiencies will drop due to many factors such as heat exchange surface fouling, lack of refrigerant, improper temperature settings, flow imbalance, etc.



The building PM program must be adapted for the type of systems specific to each building and available resources – it must be realistic!

Example maintenance list

- The PM tasks for an air conditioner, heat pump or chiller typically include:
 - Cleaning coils
 - Cleaning condensers
 - Replacing filters
 - Checking for leaks
 - Clearing drain lines
 - Ensuring outside of unit is clear of debris
 - Checking thermostats
 - Checking refrigerant charge, presence of moisture
 - Checking connections
 - Inspecting air ducts
 - Checking fan motor and oiling as needed
- These tasks capture many of the significant issues noted earlier.



Signs that maintenance is overdue

- Excessive noise: fans, bearings, loose parts
- Uneven zone temperatures, occupant complaints
- Higher than normal energy use (weather-normalized)
- Water leakage, humidity issues, frequent short cycling



Conclusion and best practices

- Preventive maintenance is key
- Train staff to spot early warning signs
- PM = investment, not expense
- Follow seasonal checklists
- Use specialized resources wherever applicable



Questions and answers

- Any questions?
- Training and support webpage: visit this page to access all training and support materials

Save on Energy's Capability Building Program

- Save on Energy's Capability Building program helps increase awareness about energy-efficiency opportunities, enhance knowledge and develop skills in organizations and communities across Ontario so they can undertake energy-efficiency actions and participate in Save on Energy programs
- The program includes tools such as workshops, [webinars](#), training courses, coaching, peer learning and information resources, including guides and videos.



Learn more at
<https://saveonenergy.ca/Training-and-Support>
Register at
www.saveonenergytraining.ca

Training courses – incentives

Save on Energy offers incentives of up to 50% for ~20 training courses, plus certification exam fees, including:

- Achieving Net-Zero Buildings
- Energy Management and the ISO 50001 Standard
- HVAC Optimization for High Performance Sustainable Buildings
- Certified Energy Manager (CEM)
- Certified Measurement & Verification Professional® (CMVP)



Learn more at
<https://saveonenergy.ca/Training-and-Support/Training-Courses>

Training courses – incentives for Enbridge customers

Enbridge customers are eligible for incentives of up to 75% for three courses:

- Dollars to \$ense Workshops: up to \$500 a day
- Certified Sustainable Building Operator® (CSBO): up to \$2,250 of course fees
- Certified Energy Manager® (CEM): up to \$2,500 of course fees

Stay connected with tools and resources

- Virtual one-on-one coaching: [post-webinar support intake form](#) for tailored support for organizations to manage energy resources effectively
- Monthly bulletin: [sign up](#) to receive monthly training updates on all Save on Energy training and support new tools and resources
- [Live training calendar](#): visit this page to easily register for upcoming events and workshops
- [Training and support webpage](#): visit this page to access all training and support materials

Post-webinar support

One-on-one coaching: tailored support for managing energy resources effectively

Post-webinar support intake form

Coaching sessions conducted virtually: phone, video calls and email
Designed for organizations, new or old, seeking guidance

Upcoming survey: we want your feedback!



Progress  11%

As someone who recently participated in the *What It Means to Become Net-Zero and How to Achieve It* as part of the **Save on Energy | Capability Building Program**, we'd like to know more about your experience. The IESO uses this feedback to monitor the success of the program and improve the offering over time. The survey should take about five minutes to complete.

This survey is conducted by Forum Research, a leading market research company, on behalf of the Independent Electricity System Operator (IESO). Be assured that all answers are completely anonymous and will have no impact on customer incentives.

***Please send any and all inquiries about the Capability Building Program sessions to trainingandsupport@ieso.ca. ***

BACK

NEXT

- Check your email! A survey is coming your way soon.
- Why? Help us improve our training programs.
- Who? Conducted by Forum Research on behalf of the IESO.
- Time? Takes only five minutes to complete.
- Confidentiality: Your responses are anonymous and won't impact participation or incentives.

The survey will be sent from:
surveyinfo@forumresearch.com

Thank you!

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