Equipment including lights and HVAC systems are often left on at all times yet on average ORs are not in use for 40% of the time.

There is scope for significant energy and cost saving with more efficient electricity use.

**POWER DOWN INITIATIVES**

1. **SWITCH OFF & UNPLUG...**
   - lights, anesthesia machines, computers / monitors, surgical equipment etc.
   - This can be done in most ORs during nights and weekends.

2. **LED LIGHTING**
   - Minimal radiant heating for LED lights means reduced cooling requirement vs halogen lighting.
   - Overall LED lights have a 49% reduced energy load.

3. **RETROFITTING**
   - Retrofitting of sterilization and medical gas vacuum equipment to improve efficiency.
   - This requires discussion with an engineering team.

4. **HEALTHCARE DECARBONIZATION**
   - Initiatives might include:
     - Powering the OR with 100% renewable energy.
     - Investment in zero-emission infrastructure.
     - Transition to zero-emission and sustainable travel and transport.

5. **OCCUPANCY SENSORS**
   - Motion detectors for lighting / HVAC etc.

6. **SOLAR FLIM**
   - When placed on windows, this can reduce heat loss in winter and prevent overheating in summer.

7. **HVAC SYSTEM REVIEW**
   - Audit efficiency and consider upgrade to more efficient system.

8. **OTHER**
   - Outside of ‘power down’ hours, where possible:
     - Keep doors closed.
     - Unplug equipment.
     - Disconnect vacuum and medical air.
     - Put computers / monitors in power save mode.

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**BARRIERS TO IMPLEMENTATION**

Main barrier: Departmental buy-in

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**BUY-IN SOLUTIONS**

- **Identify a ‘power down’ lead**
  - Nursing staff are well positioned for this role given their responsibility for prepping the OR out-of-hours.

- **Increase awareness**
  - The healthcare sector is responsible for 10% of US emissions - many small gains produce significant positive impact.

- **Engage staff**
  - Reinforce the idea of water and energy both being resources to be used only when required.

- **Real-time monitoring & reporting**
  - e.g. through use of audit / PDSA cycles.
  - Advocate for renewable energy switch.
  - See ‘local advocacy hot topic’ for tips.

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**BENEFITS**

At one US center, a power down initiative for anaesthesia machines, lighting, & computer monitors alone (across 41 ORs), reduced emissions by > 230 metric tons - equivalent to the carbon sequestered by almost 280 acres of forest.

**COST SAVINGS**

These small changes can reduce energy costs by up to 45%.

Even reducing energy use by under 10% in ORs across the US would see net cost savings of just under $1 billion over a 5 year period.