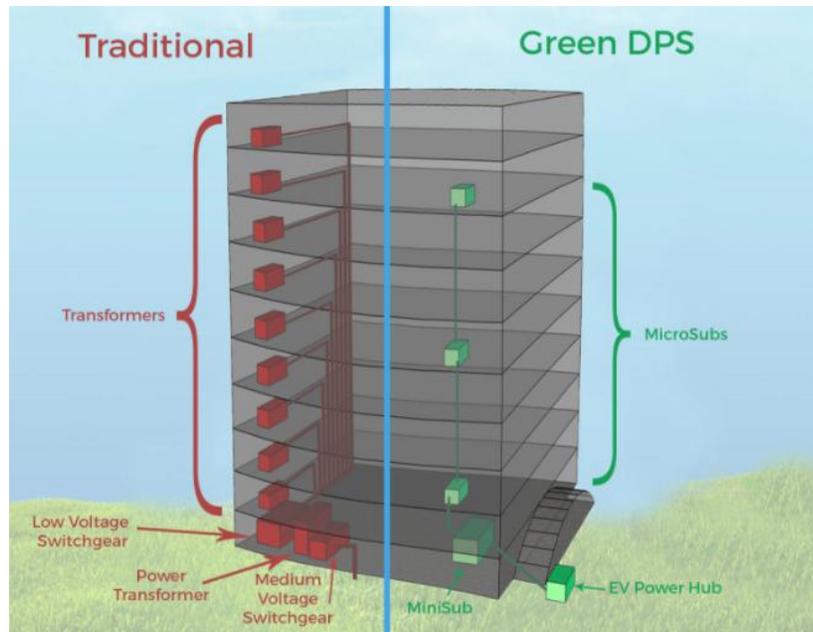


Green DPS

Part 1: Simplified Same Building Comparison with Cables



Green DPS is a solution of two of our substation products called the MiniSub & MicroSub. Each of these substations can be purchased as a standalone product within a traditional building powering infrastructure framework. Combined together, our MiniSubs & MicroSubs offer a powerful the building powering solution ideal for either a new-build and/or a retro-fit called Green DPS. Green DPS stands for Green Distributed Power System.

Green DPS technology is engineered to be simple but energy efficient, greener, safer and future-ready with less losses and voltage drop. Green DPS is a premium product innovation designed to power buildings of the future ideal for residential, commercial and industrial spaces as well as zones with low EMF needs like hospitals. Green DPS components (either a MiniSub or a MicroSubstation) can be used alone within traditional systems if the entire solution is too powerful. EV charging options are available.

Part 2: Top Benefits

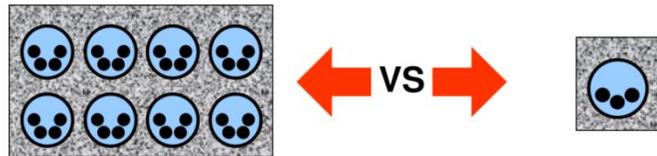
1. Greener with up to 50 % Less Materials Freeing Up Space
 - Up to 50% less materials = less Carbon/GHG's in product manufacturing/mining
 - More usable &/or rentable space throughout your building
2. Greener with 10-15% Energy Savings
 - Less materials with compact size= less losses
 - Elimination of one step down allowing for more space in the basement for an additional bike/car parking space or more storage
3. No Vault
 - Save at least \$100,000 or more upfront
 - No temporary building shut-downs for vault-maintenance
 - Extra space in the basement for an extra parking spot or bike rack or storage
4. Transformer Ownership Credit
 - Owning your own transformer gives you money back on your energy bill calculated at peak usage every month over the product lifecycle
 - This rate is determined by each utility
5. Reliability
 - Not relying on one point of failure
6. Enhanced Safety
 - Low EMF radiation in comparison to traditional systems enhancing productivity (EMFs as low as a personal computer)
 - Touch Proof connections
 - Lower fault levels throughout the whole building
7. Easy Installation
 - Can be installed for retro-fits without cutting existing power
 - Great for new builds eliminating temporary power needed during construction

Moving Energy Efficiently

Green DPS

Part 3: Medium Voltage Safety & Cost Savings

Energy transported by cables
Both systems transmit the same amount of power



Traditional cable system to move power

Green DPS

Traditional energy distribution requires bringing in medium voltage from the power lines as provided in your region. In Ontario, Canada, this power from a utility is then stepped down to 600 v in the basement of a building and is stepped down again at each floor down to 120 v. Transporting lower voltage requires large cables and/or busduct needing lots of Copper and space and will result in losses in the form of heat as illustrated by the image representation above.

Utilities in Ontario tend to use oil-filled transformers with this traditional low voltage approach with 2 step downs. The Canadian electrical code requires that these oil filled transformers be placed inside of fire rated vaults due to the risk of fire for safety reasons.

What does Dead Front mean? The Canadian Electrical Code, CEC, and the Canadian Standard's Association, CSA, allow for the use of live or air insulated connections; however, this is a potential source of arc flash and potential injury which takes up a lot of physical space in a building. Our Touch Proof design, referred to as Dead Front in technical circles, does not have any exposed or uninsulated parts. This is part of the premium offering with the Power Systems host of products. The power system Green DPS substations do not require expensive and space consuming electrical vaults. They can be placed in as little as a parking space.

Green DPS brings medium voltage from the power lines as provided in your region and only steps down once at the floor level offering both of 600 v or 120 v in every substation component comprising of the Green DPS system. This eliminates one of the 2 step downs of traditional systems and frees up space in your building(s). Due to the medium voltage the amperage drops significantly & thinner cables are used with thicker insulation in line with the safety requirements of the CEC. The thicker insulation & the sealed Green DPS design 1) cuts down on losses from less current, & 2) emits significantly less radiation for building users/inhabitants making it healthier than traditional systems. In a nutshell, radiation emitted by Green DPS components is as low as your computer & this is not the case for traditional systems. This is safer for everyone.

Green DPS consists of compact substations that are sealed and fire-proofed not needing a vault unlike traditional systems because they are safer. This means no entire building shut downs to service or clean these vaults to maintain safety. Visual check-ups are all that is needed. Furthermore, any substation component can be isolated without needing to shut the entire building power down. The design of each substation is such that it is more compact than the competition but also offers dual voltage at both 120 and 600 volts or any other required voltage per substation component. For example, if your building does not require lighting in the basement, we can skip the basement entirely and power the rest of the floors.

You can eliminate the need for temporary power by accessing power per floor as a substation component is installed. If you are building additions to expand your building or need to access more power due to capacity limitations in the future, simply add another substation instead of having to replace your power transformer, switchgear and cabling. This is great for EV power charger upgrades too, ask us about our EV Power Hub. Green DPS maintains medium voltage from the power lines in line with the CEC. All connections are 'Touch Proof' with the Green DPS design, this is not mandatory within the CEC, but is included with Green DPS.

Moving Energy Efficiently

info@PowerSystems.ca • 30 Colonnade Rd N., unit 300 Ottawa, ON, Canada, K2E 7J6 • 613-228-7228 • PowerSystems.ca