

## Builder/Developer Electrification & Energy Efficiency (BEE) Incentives and Other Measures

The following list of ideas was developed by a group of individuals who have an abiding interest in the sustainable future of the built environment. The problem put forth was 'How do we incentivize builders and developers to transition to 100% all electric, zero carbon footprint, multi-family and commercial buildings?'. The following list resulted from a monthslong process of brainstorming, research and engagement with individuals in the building eco-system. A few notes about this list.

- **This list is incomplete:** The list is intended to be the start for a large number of innovative ideas for building decarbonization. It is expected that these ideas will encourage others to add to the list.
- **This list is not prioritized:** The order on the list does not imply anything about the relative merit of the concept.
- **The ideas on the list are descriptions, not opinions:** Opinions have been purposefully left out of the descriptions. The purpose of the list is to clearly describe the concept, not to debate its value or practicality. That will come later.
- **The ideas are not mutually exclusive:** Many of the ideas overlap, many could potentially be combined. Further work is needed to shape these raw ideas into their final form.
- **The ideas in this list are the starting point, not the end point:** These ideas have not been extensively researched or vetted in any way. Some (many) may turn out to be impractical or impossible to implement. Further research and development is needed for whichever of these ideas lives on.

These ideas have been grouped into six (6) categories, not all of which may be of interest to the different parties who will use the list for their various purposes. Please do not discard the entire list because there are some categories or ideas you do not like or think are impractical. Use what you can and ignore the rest.

Please feel free to share this list with others, edit and update the items on the list and, most of all, add new ideas. For questions, comments or suggestions, please contact

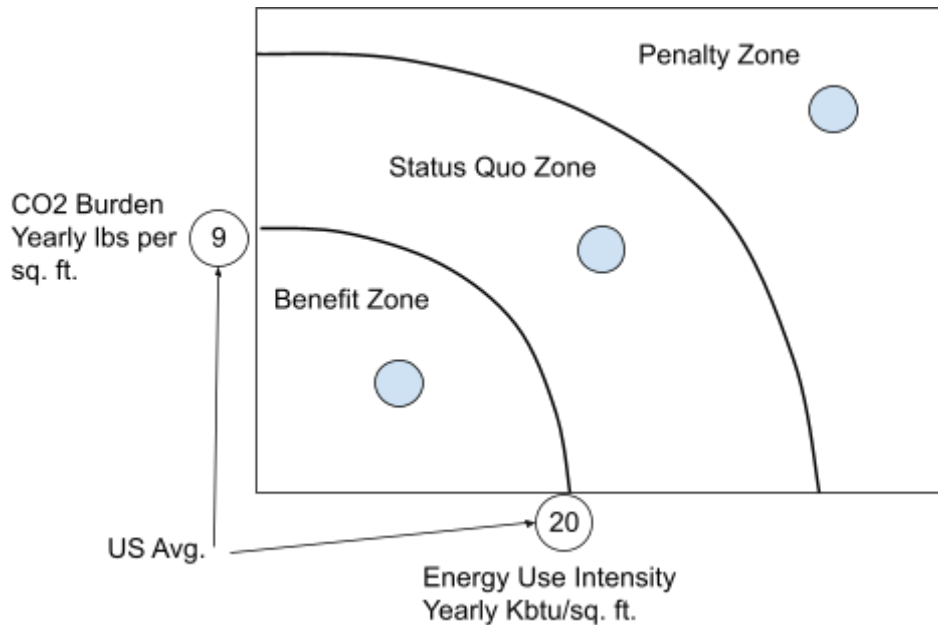
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# Green Tools - Metrics & Models

## 1. Electrification and Energy Efficiency (Triple-E) Rating

Create a comprehensive scoring system that combines a building's carbon burden with its energy efficiency. Plot existing and proposed buildings on this canvas. Use their position on the canvas to give varying subsidies, tax abatements etc.



Integrate this with the [Zero Code Calculator](#) and the [ENERGY STAR® Portfolio Manager®](#) (already adopted by A2 in their [Energy and Water benchmarking ordinance](#)). Align with 2021 and 2024 energy codes (they would define the status quo). Add a third dimension of build cost (\$/sq.ft.)

## 2. True-cost calculator

A calculator that gives a builder or owner a more accurate estimate of the true cost of a building in \$/sq. ft. The calculator would take into account

- Standard build cost in \$ per sq. ft.
- Add on a \$ per sq. ft. representing the societal cost of carbon (SCC) for the carbon emissions of the building.
- Subtract a \$ per sq. ft. for improved home environment value of an all-electric, energy efficient home. This would be based on scoring the safety, health, comfort, ambiance, and convenience of indoor living.

An all-electric building (that has 0 CO2 site emissions) would have \$0 add-on and \$X subtraction from standard build cost.

### 3. **Comprehensive modeling tool and process**

An easy to use modeling tool that integrates all of the build and operational costs of both all-electric and mixed fuel multifamily buildings. There are numerous tools designed to help builders and owners calculate their energy use and carbon footprint ([BeOPT](#), [Ekotrope](#), [Rocky Mountain Institute](#), Government tools, privately commissioned analyses, etc.) but they are not connected or integrated in any way and are difficult to use. Develop a standard, sanctioned, comprehensive framework for modeling the energy efficiency and carbon footprint of a multi-family or commercial building that will allow all builders, developers, owners, occupants and government people to benchmark and compare buildings in a common format.

## Incentives

### 1. **Restructured fee schedule**

Align all the fees for new developments - water, sewer, storm sewer, permitting, etc. - with desired A2ZERO outcomes. Permits and plan review for Triple-E buildings get 50% reduction in fees. Charge an NG connection fee based on a building's EUI - enough to be an incentive to electrify.

### 2. **The Community Reinvestment Act - [Tax Increment Financing \(TIF\)](#)**

This has passed in Michigan. It gives municipal bodies the ability to provide builders certain benefits (e.g. tax abatement) if they do certain things. One of the things they can do is to provide a tax freeze on a parcel for 12 years. The benefit to developers would go like this

1. A Developer wants to build a new building on a parcel. City freezes taxes on that parcel (undeveloped) for 12 years.
2. The Developer builds a Carbon Neutral building (or as close to one as they can). If they can't get to Carbon Neutrality they pay into a city fund for an amount that represents how far from carbon neutrality they achieved.
3. Developer pays taxes at the undeveloped property rate for 12 years (i.e. the property with the new building doesn't get reassessed for 12 years).
4. At the end of 12 years, the property is assessed and taxes go up to market rates.
5. The fund they pay into can be used to get other buildings to all-electric or

it can be an affordable housing fund, etc.

The CRA is normally administered through the local Economic Development Corp. but, for some reason, that is not possible in A2 (according to Paul Krutko) so it would need to be administered (funds from the State applied for etc.) by the city. This could go directly to the City Council and be passed by them. It's a rubber stamp at the state level after that.

**3. Emissions Credit**

Reduced fees/taxes based on building GHG emissions (site emissions) paid for by an overall 10% increase in millage/fees

**4. Preferred Financing & Insurance**

Enable some financial mechanism (e.g. [PACE financing](#) use a company like [Lean & Green Michigan](#)) perhaps subsidized by the city with repayment through the property tax and utility bills or borrowing from a partnering local financial institution at preferred rates. Create a Triple-E market for qualified lenders/insurers that give preferred rates for all-electric financing/insurance

**5. Carbon Credit Exchange:**

Create carbon credits from all-electric buildings. Allow buyers of Carbon Credits to purchase them and pass the \$ on to developers/builders. Contract with a company like [Wattcarbon](#) to assess all current and future city buildings and create a mini-market with energy, carbon incentives for all-electric. Create a Citywide carbon credit market. May also be able to do the same for solar credits (SRECs) through an exchange like [SRECTrade](#).

**6. Funding Affordable, Triple-E Housing**

For buildings over a certain number of units (50?), allow builders who can't quite reach their Triple-E targets (see above) to contribute to an affordable housing fund based on their carbon footprint and EUI score and get credit (e.g. increase their Triple-E rating) and the benefits that come from an increased ratings. The affordable housing fund could then be used to subsidize builders to build affordable housing that is all-electric and energy efficient. Currently, developers are forced to choose between low-income housing and higher-end Triple-E buildings. This option would allow builders to achieve both objectives.

**7. Builder Buyers Consortium**

Bulk purchase across multiple builders, financed by local banks/credit unions. Provide city warehouse storage until needed. Timing arbitrage.

**8. Remodel, Retrofit, Upgrade Incentives**

Encourage owners/occupants to transition to an improved building envelope and all-electric upgrades - replacing NG equipment and appliances - when they are doing remodeling or new appliance purchases. Use education, rebates, tax breaks, and bulk purchases to lower the cost of electric replacements and energy efficiency improvements. Put in place mechanisms for owner/operators of multi-family buildings to upgrade all the units in the building.

**9. Comprehensive Incentive Packages**

Combine tax incentives, preferential permitting, density bonus, etc. and scale the level of incentives based upon its Triple-E rating. If the building is meant for low income housing increase the amount of incentive by a certain multiplier to help address environmental justice. Make it so that low-income housing is not competing with sustainability on projects below a threshold (25 - 50?) number of units.

## Education & Assistance

### 1. **Incentive & Tax Concierge**

Help accessing all tax benefits (city property) , DTE incentives, etc. so a developer can add more to the capital stack for deep energy building. Access to city tax planning for developers to determine tax implications of a construction project in the early design phase

### 2. **Technical Concierge**

Help with technical requirements of Passive House and Carbon Neutral construction for developers interested in accessing deep-energy credits. Work with Passive House Institute.

### 3. **Education**

Education can be a component of many of the other ideas on this list. Alternatively or in addition, there can be independent educational initiatives to develop resources for builders that demonstrate the financial and other benefits of energy-efficient, all-electric construction

## Market & Demand Stimulus

### 1. **All-electric Building Marketplace**

Connect renters/buyers with all-electric dwellings. A marketing program targeted at 'green' renters & owners. Integrate with the City's [Green Rental Efficiency Initiative](#). The city could also work with UoM which already has a [site to help students looking for rentals](#).

### 2. **Developer/Builder 'Green' reviews, ranking & promotion**

Create a review, scoring system and ranking of Developers/Builders that build (or will build) in Ann Arbor. Rank all developers and make it visible to the public. Much like the Doctor ratings you can access to decide on which doctor to use. Give public recognition and promote builders/developers that build Triple-E or A2ZERO compliant buildings. Hold special events (e.g. [parade-of-homes](#)) promoting developers who are building Triple-E multi-family buildings.

### 3. **Multi-family owner/occupant tax breaks**

Tax credits for buying or renting a unit in an all-electric, multi-family building.

Provide tax incentives for homeowners and businesses to electrify or at a minimum improve the energy efficiency of their current homes/buildings, including appliances and equipment.

**4. Contractor and Design Professional Competition**

A (yearly?) competition to choose an all-electric, sustainable building design in A2 and then build it. Give a prize/incentives to the winner. Build on a City owned lot. Much like an artist competition to create art for public spaces.

## Process

**1. Preferential processing**

Provide accelerated processing of A2ZERO-aligned developments. All-electric projects get priority consideration based on Triple-E rating. Higher scores move up the queue for reviews. Require developers go through extra hoops if they want to connect to NG energy - require them to technically and financially justify their use of NG appliances AND engage professional services to verify them.

**2. Department Pre-planning**

City Planners & Departments Meet with Applicants early in Project to Explain goals and give honest assessment of what the application will need in order to win approval (and then stick to it!). Planners help the developer with what will make their project succeed on time.

**3. Departments Ombudsman**

A paid position (with authority) for a person to field builder issues and complaints and influence the review and permitting process. The goal of the ombudsman would be to get projects through the system fast AND promote (Electric Energy Efficient) EEE )Triple-E buildings.

**4. Electric Utility Improved Build-out - DTE Wrangler**

Have the city work with the electric utility to proactively increase the electrical grid capacity and reliability. The City - Builders - Utility work together. Don't do it building-by-building. Bundle developments and build out areas. The City already has a utility planner who plans electric infrastructure upgrades and buildout.

# Requirements & 'Nudges'

## 1. **Require all new construction be all-electric ready**

Require that all 'appliance installations' - cooking appliances, furnaces, water heaters, dryers, etc. - include provisions so that the appliance can be electrified in the future without any (electrical) modifications. The provisions would start at the panel (its capacity) and include electrical conduit runs and wired outlets immediately adjacent to all appliances including signage at each appliance that an electric version can replace its NG predecessor without modifications.

## 2. **Set guidelines/requirements for street -level utility replacement**

Do not require entire street utility replacements for a single development on a street unless:

- a. It is truly necessary for THIS development after IAPMO 2018 calculations
- b. It is on the capital improvement plan (offer a fund for City replacement, it's much cheaper to do a large replacement than property-by-property)

## 3. **Energy and GHG Site Plan**

Encourage information and description of energy attributes in site plan narrative. Add an 'Energy and GHG Plan' to existing [Required Site Plan Information](#) so developers can discuss the energy and carbon emission aspects of new buildings. Encourage the inclusion of an analysis using the 'Triple-E' rating and Zero Code Calculator or another accepted modeling tool (eg. [BEOPT](#)). For mixed fuel use (e.g. NG + Elec.) require special justification.

## 4. **Moratorium on NG-connected construction (with selected exceptions)**

For a limited time (3-6 mo.) A2 stops new NG-connected hook-ups (possibly with exceptions), to buy time to better study / analyze the issue, shift paradigms, wait for new research to be published, develop a legal strategy, collaborate with other entities, etc. Send a signal to the builder community about the seriousness of the issue and future direction of the City. Cities that have implemented measures to encourage all-electric, zero emissions buildings or restrict fossil fuel using buildings are [listed by the Building Decarbonization Coalition](#).

## 5. **HOA Restriction Override**

Make it difficult (or illegal) for HOAs to block efforts by residents to convert to heat pumps, solar, etc.