

Renewable-Ready Construction and Grid Relief Policy

A policy proposal requiring renewable energy in new construction, fair mortgage recognition for lower utility costs, and market-value buyback for power returned to the grid.

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DEMOCRATIC GOVERNANCE | ENERGY POLICY

Civic Sketches is a series of draft policy proposals by Lawrence Nault — an independent researcher and policy writer based in Alberta's Badlands. These proposals are working drafts, not party platforms or final answers. They are intended to invite discussion, challenge, and refinement across all levels of government and the broader public.

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Every new building adds pressure to the grid.

Every new subdivision, warehouse, school, hospital, condo tower, data centre, and commercial development increases demand on an energy system we already know is under strain. At the same time, governments keep talking about affordability, electricity reliability, emissions, housing costs, AI infrastructure, and future energy supply as though they are separate issues.

They are not.

If we are going to keep building, then new buildings should not simply consume from the public grid. They should help support it.

This proposal does not require every new structure to power itself completely. That would be unrealistic in many cases. What it does require is that every new building include some form of renewable energy supply or demand-reduction system — solar, wind, geothermal, solar thermal, or an approved equivalent — so that new construction provides at least some relief to the grid it depends on.

It also addresses two fairness issues that are often ignored.

First, if renewable energy lowers a household's monthly energy costs, mortgage applications should be required to count that savings when assessing affordability. A home that costs less to operate should not be treated the same as one that leaves the buyer fully exposed to rising utility bills.

Second, when a home or building sends surplus power back to the grid, that returned power should not be hit with delivery and transmission charges. You should not be charged as though you are consuming electricity when you are helping supply it.

This is not just a climate policy.

It is housing policy, grid policy, affordability policy, and infrastructure policy.

If a new building adds demand, it should also provide some relief.

Purpose

Every new building adds demand to the electrical grid. As homes, businesses, warehouses, schools, public buildings, and industrial facilities are constructed, governments should require that new development contribute to grid resilience rather than simply increasing grid pressure.

This policy would require all new building construction to include an on-site renewable energy component, such as solar, wind, geothermal, or another approved low-emission energy system.

The purpose is not to require every building to fully power itself. The purpose is to ensure that every new building helps reduce long-term demand on the public grid, lowers energy costs where possible, and contributes to a more resilient energy system.

Core Requirement

All new building construction would be required to include a renewable energy supply or renewable energy offset system.

Eligible systems may include, but are not limited to:

- Rooftop or building-integrated solar.
- Small-scale wind generation, where appropriate.
- Geothermal heating and cooling.
- Solar thermal systems.

- Community-based renewable connections where on-site generation is impractical.
- Other approved renewable or low-emission systems that reduce demand on the public grid.

The renewable system would not be required to supply the full energy needs of the structure. However, it must provide a measurable contribution toward reducing the building's net demand.

Minimum Contribution Standard

The policy should establish a minimum renewable contribution requirement based on building type, size, use, and location.

For example, the requirement could be based on one or more of the following:

- A minimum percentage of projected annual electricity use.
- A minimum installed generation capacity per square metre.
- A minimum reduction in projected grid demand.
- A minimum contribution to heating, cooling, or hot water demand.
- A site-specific renewable feasibility assessment.

The standard should recognize that not every technology is suitable for every location. A solar requirement may make sense for one site, while geothermal may be more appropriate for another.

Residential Mortgage Recognition

For residential housing, mortgage qualification rules should recognize the real monthly cost savings created by renewable energy systems.

Where a new home includes a renewable energy supply that reduces monthly utility costs, lenders and mortgage insurers should be required to account for the verified energy-cost offset when assessing housing affordability.

Currently, a household may be treated as though it carries the full energy cost of a conventional home, even when the home's renewable system will reduce those costs. This can make renewable-equipped homes appear less affordable on paper, even when they are less expensive to operate month to month.

Mortgage applications for qualifying homes should therefore include:

- Estimated monthly energy savings.

- Expected reduction in utility costs.
- Any renewable energy credit or grid-return benefit.
- Maintenance costs, where applicable.
- Net monthly housing cost after energy savings.

This would allow affordability assessments to reflect the actual cost of living in the home, rather than only the purchase price and conventional utility assumptions.

No Delivery and Transmission Charges on Power Returned to the Grid

Where a renewable-equipped building is connected to the electrical grid, power returned to the grid should not be subject to delivery and transmission charges.

A household, business, school, farm, or public facility that generates surplus electricity and sends it back to the grid is supplying energy to the system. It should not be charged delivery and transmission fees on electricity it contributes.

This rule should operate alongside a fair market buyback requirement. Returned power should be compensated at current market value, and the person or entity supplying that power should not be charged delivery and transmission fees on the energy they are providing to the grid.

Utilities may still apply reasonable administrative, metering, interconnection, and safety standards, but those standards must not be used to discourage small-scale renewable generation, reduce the value of returned power, or create hidden penalties against distributed energy producers.

Fair Market Buyback for Power Returned to the Grid

Where a renewable-equipped building returns surplus electricity to the grid, the grid operator or utility must purchase that electricity at current market value.

Returned power should not be treated as a favour to the property owner, nor should it be discounted simply because it comes from a household, farm, school, small business, public building, or community-scale renewable system.

If the grid needs electricity, and a building supplies electricity, that power has value.

The buyback rate should reflect the current market value of electricity at the time it is supplied to the grid, subject only to transparent and publicly regulated rules. Utilities should not be permitted to create artificial pricing structures that substantially reduce the value of small-scale or distributed renewable generation.

The only exception should apply when both of the following conditions are met:

- The grid is already being supplied by 100% renewable energy at that time; and
- All available grid-connected energy storage is already at capacity.

In that limited circumstance, the grid may temporarily decline or reduce compensation for additional returned power, because accepting the power would provide no practical system benefit.

This exception must be narrow, time-limited, publicly auditable, and based on real grid conditions. It must not be used as a general excuse to avoid compensating property owners for renewable electricity returned to the system.

Where power is accepted by the grid, it must be paid for.

Where power is needed by the grid, it must be valued fairly.

A renewable-ready construction policy only works if the public is not asked to invest in generation systems while utilities are allowed to undervalue the electricity those systems produce.

Grid Resilience and Public Benefit

This policy recognizes that distributed renewable generation provides public benefits.

On-site and local renewable systems can:

- Reduce peak demand.
- Lower long-term pressure on transmission infrastructure.
- Improve resilience during grid stress.
- Reduce household and business operating costs.
- Support local energy independence.
- Reduce the need for expensive new centralized generation.
- Lower emissions from new development.

- Make new buildings less vulnerable to future energy price shocks.

A building that contributes even a small share of its own energy needs is less burdensome to the public system than one that contributes nothing.

Public Buildings

All new publicly funded buildings should meet a higher renewable contribution standard.

This would include:

- Schools.
- Hospitals.
- Libraries.
- Recreation centres.
- Government offices.
- Public housing.
- Transit facilities.
- Municipally owned buildings.

Where public dollars are used to construct a building, the long-term operating savings should benefit the public as well. Renewable systems should be considered part of responsible public infrastructure, not optional upgrades.

Large Commercial and Industrial Buildings

Large commercial, warehouse, institutional, and industrial buildings should be required to complete a renewable feasibility and grid-impact assessment before approval.

This assessment should identify:

- Projected grid demand.
- Available roof, land, or structural capacity for renewable generation.
- Heating and cooling alternatives.
- Potential for geothermal or waste-heat systems.
- Battery storage opportunities.
- Expected peak-demand contribution.

- Measures to reduce demand on local grid infrastructure.

Large buildings with significant roof area or land area should not be permitted to add major new electrical demand without also contributing meaningful generation or demand reduction.

Exemptions and Alternatives

Exemptions should be limited and justified.

A building may qualify for an exemption or alternative compliance pathway where:

- Renewable installation is technically impractical.
- The site has insufficient access to renewable resources.
- Structural or safety limitations prevent installation.
- Heritage or environmental protections restrict installation.
- A better community-scale renewable option is available.

Where an exemption is granted, the builder or owner should be required to contribute to an approved community renewable energy project, local grid-resilience fund, or equivalent demand-reduction program.

Exemptions should not become a loophole that allows ordinary projects to avoid compliance.

Anti-Affordability Abuse Clause

The cost of renewable installation must not be used as a justification for excessive housing price increases.

Governments should support standardized installation practices, bulk procurement, low-interest financing, and predictable permitting to reduce costs.

For residential construction, the goal is to lower long-term housing costs, not create another price premium that benefits developers while burdening buyers.

Builders should be required to disclose:

- The installed cost of the renewable system.
- Expected monthly energy savings.
- Expected maintenance costs.

- Warranty terms.
- Expected lifespan of the system.
- Any rebates, grants, or tax incentives received.

Any public subsidy or incentive for renewable installation should be passed through transparently to the purchaser, tenant, or public owner.

Rental Housing

Where renewable systems are installed on rental housing, the financial benefit should not flow only to the building owner while tenants continue paying full utility costs.

For rental properties, the policy should require transparent allocation of benefits.

This may include:

- Reduced utility charges for tenants.
- Lower common-area energy costs.
- Rent-control recognition where public subsidies were used.
- Disclosure of who receives the energy savings.
- Protection against using publicly supported renewable upgrades as a pretext for excessive rent increases.

If tenants are helping pay for the system through rent, fees, or public subsidy, tenants should share in the benefit.

Building Code Integration

The renewable requirement should be integrated into building codes, development approvals, and occupancy permitting.

A new building should not be approved unless it includes:

- A renewable energy plan.
- A projected energy contribution estimate.
- Grid-connection details, if applicable.
- Maintenance and ownership responsibility.
- Disclosure of expected savings.
- Confirmation that returned power will not be charged delivery and transmission fees.

This requirement should be treated as a standard part of modern construction, similar to insulation, ventilation, fire safety, accessibility, and energy-efficiency requirements.

Implementation Timeline

The policy should be phased in to allow industry adaptation.

A possible timeline could include:

Year 1: Mandatory renewable feasibility disclosure for all new buildings.

Year 2: Renewable requirement for public buildings and large commercial buildings.

Year 3: Renewable requirement for new residential construction.

Year 4: Full integration into building codes and mortgage affordability rules.

Remote, northern, rural, and low-income housing contexts should receive specific implementation support so the policy does not worsen affordability or regional inequality.

Enforcement

Enforcement should occur through the building approval and occupancy process.

Compliance should be required before final occupancy approval unless an approved alternative compliance pathway has been granted.

Penalties may apply where developers:

- Misrepresent projected energy savings.
- Fail to install required systems.
- Remove or disable systems after approval.
- Claim renewable compliance through systems that are not functional.
- Receive public incentives but fail to pass through the disclosed benefit.
- Charge delivery or transmission fees on power returned to the grid contrary to the policy.

Policy Principle

New buildings should not only consume from the public grid. They should help support it.

A renewable energy requirement for new construction recognizes that energy infrastructure is no longer separate from housing policy, affordability policy, climate policy, and public infrastructure planning.

If a building is going to add new demand, it should also provide some relief.

About the Author

Lawrence Nault is a Canadian author, filmmaker, and independent researcher based in Alberta's Badlands and Rockies. He writes speculative fiction and YA fantasy, directs documentary film, hosts the podcast *Stone & Signal*, and publishes academic research and policy proposals on digital infrastructure, occupational health, and environmental governance. His work asks hard questions about ecology, technology, and what it means to be human.

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