

The Heat Condition

Permit conditions, a community covenant, and a model state act for any county, city, or state considering a data center

Released to the public domain (CC0). Free to copy, adapt, and adopt — no attribution, no license, no vendor.

This is not legal advice. Have your county or city attorney, or Legislative Services, review it before adoption. Virginia localities should confirm each condition against the Dillon Rule and Va. Code § 15.2-2286 (special use permits) and §§ 15.2-2296 et seq. (conditional zoning and proffers).

Why this exists

Every data center turns electricity into heat. Nearly all of it leaves by the roof. The newest buildings — the ones cooled by water to serve AI load — release that heat at temperatures hot enough to run a greenhouse, a fish farm, a public pool, or the floor of a house, in January, with nothing burned.

Whether any of that happens is decided once, on a site plan, before the public sees it. This document moves the decision into the open. It asks one question, in three places where it can be answered:

THE QUESTION THIS DOCUMENT ASKS

Where does the heat go?

Part One is for a board of supervisors or a city council: conditions a locality can attach to a special-use permit, and a covenant a developer can offer in return. Part Two is for a state legislature: four sections of a model act, each with a precedent already in force somewhere. Part Three is for anyone who will never read an ordinance.

Virginia's HB 323 (2026), Chapter 591 of the 2026 Acts of Assembly, passed the Senate 39–0 and is the first state law in the country directing action on data-center waste-heat reuse. Nothing here waits on it. Nothing here conflicts with it.

PART ONE — For counties and cities

Model permit conditions for data-center special use permits

A. Definitions

For purposes of these conditions:

1. **"Data center"** means any facility, or phase of a facility, whose principal use is the housing and operation of computing equipment, with a designed critical IT load of [__] megawatts or more.
2. **"Rejected heat"** means thermal energy removed from computing equipment and released to the atmosphere, to water, or to any other sink, whether by air, liquid, or refrigerant.
3. **"Recoverable heat"** means rejected heat carried in a liquid loop at a supply temperature of [__] °F or higher at the point where it leaves the data hall.
4. **"Heat Recovery Assessment"** means the written assessment required under Condition B.
5. **"Connection point"** means a valved, isolatable tap on the facility's cooling loop, together with a pad and easement, reserved under Condition C.
6. **"Adjacent heat user"** means any agricultural, aquacultural, residential, or public use within [__] feet of the facility's property line that is capable of receiving recoverable heat.

B. Heat Recovery Assessment — filed before the hearing, in public

1. The applicant shall file, not less than [30] days before the first public hearing on the application, a Heat Recovery Assessment prepared and sealed by a professional engineer licensed in the Commonwealth.
2. The assessment shall state, for the facility at full build-out and for each phase:
 - (a) the total rejected heat, in megawatts thermal, at design load;
 - (b) the cooling method for each data hall, and the design supply and return temperatures of any liquid loop;
 - (c) the share of rejected heat that is recoverable heat, and the hours per year it is available;
 - (d) the adjacent heat users existing or reasonably foreseeable within the distance set in A.6, and the estimated heat each could receive;
 - (e) the estimated cost of providing the connection point under Condition C during construction, and the estimated cost of providing it after construction.
3. The assessment is a public record. It shall be posted with the application materials and made available at the hearing.

C. Site plan reservation — the connection point

The approved site plan shall reserve, and the applicant shall provide during construction of the first phase:

1. an isolatable tap on the facility's liquid cooling loop, sized to deliver not less than [__] percent of recoverable heat, located so as not to affect the facility's reliability or redundancy guarantees;
2. a graded pad of not less than [__] square feet, within [__] feet of the property line, for a heat exchanger and pumping station;
3. a recorded easement, of not less than [__] feet in width, from the tap to the property line, for a buried supply and return main;
4. a heat meter at the tap, owned or read by a party other than the operator, recording supply and return temperature and flow;
5. a written commitment to maintain a minimum available flow of [__] at the tap whenever an adjacent heat user is connected and drawing, subject only to the facility's own safe operation.

Nothing in this condition requires the operator to deliver heat to any party, to guarantee any temperature or quantity to a third party, or to allow any third-party equipment inside the facility. Nothing crosses the wall but warm water.

D. Offer before venting

1. Before the operator rejects recoverable heat to the atmosphere from any phase, the operator shall offer that heat, at the connection point, to any adjacent heat user on terms not exceeding the operator's actual incremental cost of delivering it to the property line.
2. The offer shall be in writing, shall remain open for not less than [12] months from energization of each phase, and shall be renewed annually for so long as recoverable heat is rejected.
3. The operator satisfies this condition by making the offer. It does not require the operator to accept any particular counterparty or to build anything beyond Condition C.

E. Annual public heat report

Each year, on the anniversary of the certificate of occupancy for the first phase, the operator shall file with the [zoning administrator] a report, which shall be a public record, stating:

1. total electricity consumed and total rejected heat for the year;
2. recoverable heat delivered through the connection point, by month, as recorded by the meter under C.4;
3. the adjacent heat users served and, if none, the offers made under Condition D and their disposition;
4. any change in cooling method or design temperature since the prior report.

F. No confidentiality on water, power, or land

This is a policy of the locality, adopted by resolution, rather than a condition on the applicant. It binds the locality's own officers.

The [County/City] shall not enter into, and no officer, employee, or elected official acting for the [County/City] shall be bound by, any nondisclosure or confidentiality agreement that restricts public discussion of a proposed data center's projected water consumption, electrical demand, transmission or substation requirements, acreage, or the identity of the applicant or its principals, except as required by state or federal law.

G. The Community Covenant — voluntary, proffered by the developer

A developer may proffer the following under Va. Code § 15.2-2296 et seq. (or the equivalent conditional-zoning authority in another state). It is offered in exchange for the community's permission and is not a condition the locality imposes.

The developer covenants, for itself, its successors, and its assigns:

1. **A farm on the loop, built first.** A greenhouse or other protected-agriculture facility of not less than [2.5] acres, connected to the connection point under Condition C, shall be constructed and operating before the energization of the first data hall, or within [18] months of it, whichever is earlier.
2. **A food floor.** Not less than **15 percent of the farm's annual harvest, by weight**, shall be delivered without charge to food-access programs serving residents of the [County/City] — public school nutrition programs, food pantries, senior nutrition programs, and programs serving SNAP-eligible households — with senior nutrition programs given first call. This obligation is senior to every other claim on the harvest and shall be reported annually, in pounds, by program, as part of the report under Condition E.
3. **Local hiring.** The farm shall give first consideration for all positions to residents of the [County/City] and adjoining localities, and shall report annually the number of positions and the share filled locally.
4. **Runs with the land.** This covenant shall be recorded among the land records of the [County/City], shall run with the land, and shall bind every subsequent owner or operator of the facility and of the farm.
5. **Signed in public.** This covenant shall be executed at a public meeting of the governing body, and no term of it shall be subject to any confidentiality agreement.

Adoption notes

- **Virginia.** Conditions A–E are drafted for a special use permit under § 15.2-2286(A)(3). Conditions on a special use permit must be reasonable and related to the use; the heat-recovery findings in the Heat Recovery Assessment supply the record for that relationship. Condition F is a resolution, not a permit condition. Condition G is a proffer under the

conditional-zoning statutes and must be offered by the applicant, not required by the locality.

- **Other states.** Substitute your state's special-use or conditional-use permit authority. Home-rule localities generally have broader authority than Virginia's Dillon Rule allows; Dillon Rule states should follow the Virginia notes.
- **Blanks.** Bracketed figures are left for the locality and its engineer to set. Suggested starting points are in the companion technical note; the locality's own consulting engineer should set the final values.

PART TWO — For state legislatures

A model act: Data Center Heat Recovery

Four sections. Each has a precedent already in force. None mandates the reuse of heat; each mandates that the question be answered.

§ 1. Farm-ready standard for new data centers

A. The [Board of Housing and Community Development / Uniform Statewide Building Code] shall, by [date], adopt a farm-ready standard for new data centers with a critical IT load of [___] megawatts or more, requiring that the following be provided during initial construction:

1. an isolatable tap on any liquid cooling loop;
2. a graded pad for a heat exchanger within [___] feet of the property line;
3. a recorded easement for a supply and return main from the tap to the property line;
4. a heat meter at the tap, read by a party other than the operator;
5. a stated minimum available flow at the tap, maintained whenever a connected user is drawing.

B. The standard shall not require the delivery of heat to any party, shall not affect the facility's reliability or redundancy design, and shall not authorize any third-party equipment within the facility.

Precedent: solar-ready provisions in California Title 24 and the IECC solar-ready appendix, which require conduit and roof space during construction without requiring installation.

§ 2. Heat recovery analysis at the permit stage

A. Every application to a locality for a land-use approval of a data center with a critical IT load of [___] megawatts or more shall include a Heat Recovery Assessment, prepared by a licensed professional engineer, stating the rejected heat, cooling method and temperatures, recoverable share, and adjacent uses capable of receiving it. The assessment shall be a public record.

B. The [Department of Energy / Department of Agriculture and Consumer Services] shall retain or designate one qualified heat-recovery expert to assist localities, at no cost to the locality, in reading and evaluating assessments filed under this section.

Precedent: the Province of Noord-Holland (Netherlands) requires a residual-heat analysis with every data-center permit application and funds a single "Expert Datacenter Heat" to assist municipalities.

§ 3. Byproduct thermal energy is a product, not a utility service

A. Notwithstanding any other provision of Title 56 [or your state's public-utility title], the sale or delivery by contract of thermal energy that is a byproduct of the seller's principal industrial or commercial operation, to one or more purchasers, shall not constitute the furnishing of a public utility service, shall not require a certificate of public convenience and necessity, and shall not subject the seller to rate regulation, provided that the seller does not hold itself out as serving the public generally.

B. A locality, or an authority created by a locality, may finance, construct, own, and operate thermal distribution mains for byproduct thermal energy, and may issue revenue bonds for that purpose.

C. Nothing in this section affects the regulation of electric or gas service.

Precedent: Colorado SB26-142 (2026), which permits contract sales of byproduct heat outside public-utility regulation and authorizes local-government thermal bonds. Virginia note: the statutory reading of §§ 56-1, 56-232, and 56-265.1 is the reason this section is needed; without it, warm water crossing a public road from a data center to a greenhouse may be a utility service requiring a certificate.

§ 4. Demonstration project

A. There is hereby established the [Southside] Data Center Heat Recovery Demonstration. The [Department of Agriculture

and Consumer Services], in cooperation with [GO Virginia Region 3], the [Tobacco Region Revitalization Commission], and the [Institute for Advanced Learning and Research], shall site, fund, and construct not less than one demonstration consisting of a data hall or comparable heat source, a connected protected-agriculture facility of not less than [2.5] acres, and a public heat meter.

B. The demonstration shall report publicly, not less than quarterly: heat delivered, water consumed, electricity consumed, pounds of food produced, and full-time positions supported.

C. The [Department] shall report to the General Assembly by [date] on the results and on recommended amendments to §§ 1-3 based on the metered record.

Precedent: the June 2025 study commissioned by GO Virginia Region 3 and the Institute for Advanced Learning and Research recommending exactly this model — a siting study, a publicly owned farm park, and a funding path — for Southside Virginia. The recommendation has been on the table since.

Relationship to HB 323

Chapter 591 of the 2026 Acts of Assembly charged a work group with reporting on how the Commonwealth should proceed on data-center waste-heat reuse. Sections 1 through 4 are drafted to be the "how": three pages of law with a precedent in force elsewhere, and one demonstration with a public meter, so that the 2027 session can legislate from evidence rather than commission a further study.

PART THREE — The five questions

For anyone who will never read an ordinance. Ask these of any data-center applicant, out loud, at any hearing.

1. **Where does the heat go?**
2. **What cooling are you using, and at what temperature does the water leave?**
3. **Is there a connection point on the site plan?**
4. **If there's a farm, who gets the food?**
5. **Will you sign it in public — a covenant, not an NDA?**

An applicant who can answer all five has a Heat Recovery Assessment, a connection point, a covenant, and nothing to hide.

An applicant who cannot answer the first one has not thought about it, and now will.

The Heat Condition is released into the public domain under CC0 1.0. Copy it. Put your county's name on it. Model language v1 was published September 2026; v2 adds Part Two (the model state act) and reframes the confidentiality provision as a locality resolution. Engineering values for the bracketed figures are in the companion technical note.