DEPARTMENT OF AUDITS AND ACCOUNTS

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February 27, 2018

Honorable Jay Powell
Chairman, House Ways and Means
133 Capitol
Atlanta, Georgia 30334

SUBJECT: Fiscal Note
House Bill 696 (LC 43 0923S)

Dear Chairman Powell:

The bill would create a sales tax exemption for high technology data center (HTDC) equipment. A qualified HTDC must result in an investment of at least $250 million over ten years and meet other criteria as noted in the appendix. The provisions would be effective for expenditures between July 1, 2018 and June 30, 2028.

Any estimate of revenue impact is dependent on the number and size of eligible HTDCs that locate in Georgia. Georgia State University's Fiscal Research Center (FRC) estimated the fiscal impact for a range of new HTDC activity. In FY 2020, the first year of the bill's full effect, FRC estimated a $15.2 million reduction in state revenue and $11.4 million reduction in local revenue (Table 1). The high estimate assumes a "hyperscale" HTDC locates every year and smaller scale qualifying projects locate in FY 2021-2023. The lower estimate assumes a "hyperscale" project in FY 2019 and FY 2020 and smaller scale projects locating in subsequent years. Details of the analysis are in the attached appendix.

Table 1. Estimated State and Local Revenue Loss

($ *millions*)	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
State Revenue Effects:					
High	$7.6	$15.2	$19.1	$15.6	$17.1
Low	$7.6	$15.2	$11.5	$8.0	$8.2
Local Revenue Effects:					
High	$5.7	$11.4	$14.3	$11.7	$12.8
Low	$5.7	$11.4	$8.6	$6.0	$6.2

Impact on Expenditures
The bill would not result in significant new expenditures by the Department of Revenue.

Sincerely,

Greg S. Griffin
State Auditor

Teresa A. MacCartney, Director
Office of Planning and Budget

GSG/TAM/mt

Analysis by the Fiscal Research Center

The proposed substitute bill requires that the HTDC meet certain criteria to qualify for the exemption, including in particular a minimum investment threshold of $250 million in aggregate expenditures in the state on HTDC equipment over the 10-year period that the exemption is available. An HTDC is defined to mean "a facility, campus of facilities, or array of interconnected facilities in the state that is developed to power, cool, secure, and connect its own equipment or the computer equipment of [HTDC] customers" and also meets the minimum investment threshold. Any otherwise qualified equipment that is or will be the subject of a property tax abatement would not be eligible for this exemption, and any equipment that qualifies for any other sales tax exemption – e.g. the computer equipment exemption under O.C.G.A. §48-8-3(68) – would not count toward the minimum investment threshold.

Various structural, infrastructure/systems, and other qualifying specifications included in previous versions of HB 696, such as roof wind rating and cooling system technology requirements, or the offering of denial of service mitigation services, are not included in this version. HTDC equipment is defined to include computer equipment as that term is defined in O.C.G.A. §48-8-3(68), and all "materials, components, machinery, hardware, software, or equipment" used to create, operate or protect the data center, or to generate or deliver power, environmental conditioning, and telecommunications services in the data center. Thus, the exemption would apply to substantially all tangible personal property used to build, operate, or maintain the HTDC, provided it is not or will not be receiving a property tax abatement.

Note, however, that computer equipment sold to companies classified under certain technology-related NAICS codes is already exempt from sales tax under O.C.G.A. §48-8-3(68) without the proposed new exemption. Among those NAICS codes are ones that arguably encompass some or all HTDCs, e.g. 541513 Computer Facilities Management and 541513 Other Computer Related Services. NAICS codes are classifications of convenience for statistical purposes of government agencies and others, and larger enterprises, in particular, may operate under many NAICS classifications at the same time or over time. Thus it is assumed that any given HTDC qualifying for the proposed exemption would also qualify for the existing exemption for the computer equipment installed in the center. The effect of the proposed exemption would be to extend the exemption to materials and non-computer equipment used in the construction, operation, or maintenance of the HTDC. Unlike previous versions of the bill, as noted above, this version clarifies that equipment receiving another exemption from sales tax would not be counted toward meeting the $250 million minimum investment threshold.

The language of the bill also provides the exemption to the customers of a HTDC, as well as to the owner or operator of the HTDC, for equipment to be installed or used at the HTDC. Thus, computers or other eligible equipment owned by lessees of HTDC space, including those that are not themselves high-technology businesses eligible for the existing computer equipment exemption, would be made eligible for exemption under the proposed bill, increasing the revenue impact. This equipment would apply toward the minimum investment threshold regardless of ownership. Unfortunately, it is not possible at this time to estimate the amount of such computer or other equipment that is otherwise not currently exempt, but would be made eligible by the proposed bill.

Finally, the bill also provides for a bonding requirement under which the posted bond ($20 million face amount) is subject to forfeiture in the event the project does not reach the minimum investment threshold within the allowed time, the HTDC is subject to bankruptcy proceedings, or any tangible personal property that receives the proposed exemption also at any time receives a property tax abatement. It is not possible at this time to determine how this provision of the bill might impact the projected revenue losses or how much of the projected losses might later be recovered.

Data Center Industry Overview
The types of data centers likely to meet the investment threshold are large-scale centers such as those being built by or for firms offering colocation, cloud storage and hosting, and similar services including, for example, well-known names like AT&T, Apple Computer, Google, Microsoft, Amazon Web Services, and Oracle. A host of other data center owners and operators are less well-known, but also actively expanding, including several that are structured as Real Estate Investment Trusts to develop, own, and lease data center space to service-providers like those listed above as well as to any other business enterprise in need of data center space. Among the largest of these are Digital Realty Trust, Equinix, Switch, CyrusOne, Stream Data Centers, T5 Data Centers, CloudHQ, and QTS Data Centers, which owns and operates in Atlanta the ninth largest US data center as of 2016, according to Site Selection Group. Finally, some of the firms listed above (e.g. Amazon and Google), as well as others, have a large digital presence in their core businesses and thus have been building networks of data centers to meet their own internal needs. Recently, a number of firms, including but not limited to three of those listed above, have announced plans to develop or expand data center campuses in Georgia.

There are currently an estimated 1,444 data centers operating in the US and 49 in Georgia, according to Wired Real Estate Group, though most of these are enterprise data centers or others that, if built today, would be unlikely to meet the investment threshold or other requirements for the HTDC exemption. According to Site Selection Group, the Atlanta metro area ranked as the tenth largest data center market in the US in 2015, while Cushman & Wakefield ranks it as the eighth fastest-growing US market in 2016.

New data centers or expansion projects most likely to qualify for the HTDC exemption are what the industry often refers to as "hyperscale" data centers, defined as such more by their architecture and scalability than by size, but tending to be very large in terms of space and energy-handling capacity. Industry news and research publisher Datacenter Dynamics estimates that there were 300 hyperscale data centers globally as of December 2016, up from 259 in 2015, with 135 of those facilities in the US, 45 percent of the total. Networking equipment company Cisco projects 485 hyperscale data centers globally by 2020, which would imply at least 59 new centers in the US alone over four years, or nearly 15 per year, if it maintains only a 40% percent share.

Some examples of hyperscale projects built in recent years or announced in recent months are provided below:

- Switch – Douglas County, GA
    - 1 million sq. ft.
    - $2.5 billion
    - 100 percent powered by renewable energy sources

- CyrusOne – Chandler, AZ (Chandler I-V)
  - 641k sq. ft. in five phases starting 2011, last two to be completed 2017
  - Critical load capacity of 54MW
  - Total investment ~$321 million for buildings and improvements* (Chandler V includes powered shell only)
- Dupont Fabros (now Digital Realty) – Ashburn, VA (Ashburn Corporate Center #4-7)
  - 1,415k sq. ft. in four phases built from 2007 through 2016
  - Critical load capacity of 41.6MW
  - Total investment ~$1,388 million for buildings and improvements*
  - Two more centers (ACC9 & 10) under construction and two other parcels at same site (ACC8 & 11) held for future development
- Stream Data Centers – Chaska, MN (build-to-suit for US Bancorp)
  - 56k sq. ft., projected completion December 2017
  - Total cost $250 million
  - Critical load capacity 2.4MW
- Facebook Inc. – Fort Worth, TX
  - 660k sq. ft. in three buildings, broke ground July 2015, first two operational 2016-2017, third begun 2017
  - Total investment ~$767 million (estimated) for buildings and improvements*
  - Permit drawn for third building (220k sq. ft.) with estimated construction cost of $267 million
- Apple Inc. – Waukee, IA
  - Announced August 2017, planned operational 2020
  - 400k sq. ft.
  - Total investment ~$1,265 million
    - $620 million for buildings and improvements*
    - $45 million for non-computer equipment
    - $600 million for computer equipment

* includes electrical and mechanical systems and equipment; excludes land

Key Assumptions and Fiscal Effects
Assumptions of the characteristics of hyperscale and minimum investment projects follow below, along with high and low case projection assumptions. Resulting projections of investment amounts for FY 2019-23 that would be exempted by the bill are provided in Table 2.

- Individual project initial investment total
  - Hyperscale Project: $1.25 billion (assumes similar scale to Apple IA project, incl. computers)
  - Minimum Investment Project: $250 million (assumes similar scale to Stream MN project, incl. computers)
- Building and improvements (B&I) portion (50 percent of total)
  - Hyperscale Project: $625 million
  - Minimum Investment Project: $125 million

- Taxable portion of B&I (materials, fixtures, and equipment)
    - Approx. 53 percent based on Apple materials tax rebate of $19.6 million on $620 million cost at 6 percent Iowa state sales tax rate
        - Hyperscale Project: $330 million
        - Minimum Investment Project: $66 million
- Non-computer equipment (equipment not part of B&I)
    - Hyperscale Project: $50 million
    - Minimum Investment Project: $10 million
- Investment subsequent to initial phase (annual, roughly 5 percent of B&I)
    - Hyperscale Project: $31 million
    - Minimum Investment Project: $6 million
- Project Buildout Timing
    - Hyperscale Project: Initial investment over 2 years
    - Minimum Investment Project: Initial investment over 1 year
- Number of Projects Initiated
    - High Case:
        - New hyperscale project initiated every year beginning in FY 2019
        - Minimum investment project initiated in FY 2021 and each subsequent year
    - Low:
        - New hyperscale project initiated in FY 2019 and FY 2020
        - Minimum investment project initiated in FY 2021 and each subsequent year

Table 2. Taxable Investment Absent Proposed HTDC Exemption

(*$ millions*)	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
High Case	$190	$380	$477	$390	$427
Low Case	$190	$380	$287	$200	$206