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November 15, 2018

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Members of the Senate Committee on
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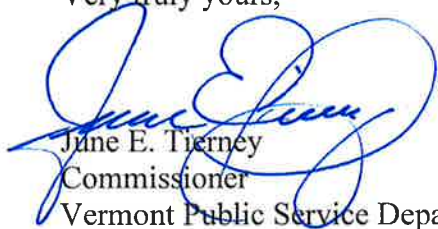
**Re: Sustainable Funding for the Public Utility Commission and the Public Service
Department**

Dear Senators and Representatives:

I am pleased to submit the *Sustainable Funding for the Public Utility Commission and the Public Service Department*.

If you have any questions or concerns upon reading this report, please do not hesitate to contact me.

Very truly yours,



June E. Tierney
Commissioner
Vermont Public Service Department

CC: Stephen Klein, Chief Fiscal Officer, Joint Fiscal Office
Public Utility Commission



**SUSTAINABLE FUNDING FOR THE
PUBLIC UTILITY COMMISSION AND THE
PUBLIC SERVICE DEPARTMENT**

Vermont Public Service Department

November 15, 2018

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Executive Summary

Through Act 11 of 2018, the Vermont General Assembly required the Public Service Department (“Department” or “PSD”) to provide a report and recommendations for sustainable funding of work of the PSD and the Public Utility Commission (“Commission” or “PUC”). The central challenge for the Department and the Commission looking forward is that there is considerable growing demand for regulatory services at the same moment when traditional funding for these agencies --- monies collected through the gross receipts tax on utility revenues --- is on a declining trajectory for the foreseeable future.

The gross receipts tax (“GRT”) mechanism currently generates funding that covers approximately 95% of the Commission’s costs and 85% of the Department’s salaries. The GRT mechanism has been in use in Vermont for at least 45 years with little change and has served its purpose well during this period. However, circumstances have changed significantly in the intervening 45 years, and alternative approaches will be needed to ensure sustainable funding of the PSD and the PUC going forward.

In recent years the industries that pay the GRT are seeing flat to declining sales and revenues. There are different explanations in different industry sectors. In telecommunications, the decline is associated with a fundamental shift in service between cable and telecommunications, and between traditional voice services that are subject to the tax, and broadband and information services that strain easy interpretation in relation to the tax. In the electricity sector, sales and revenues are flat to declining. In turn, other major sources of GRT revenues, such as the natural gas sector, have recently declined.

More broadly, with the passage of time and the relatively static character of the Vermont GRT mechanism, this report concludes that there is no longer a strong match between regulatory services provided and GRT revenues paid. Certain categories of services like telecommunications and cable appear to contribute a disproportionate share of revenue relative to regulatory resources consumed, while water, natural gas, and “other” customers in these sectors appear to consume a level of regulatory resources that exceeds the regulatory funding contribution they make through the GRT. Significantly, within the last decade new actors have emerged in Vermont’s electric sector (i.e., developers and merchant generators) who now consume significant regulatory resources but do not directly contribute to the costs of maintaining the PSD and the PUC.

Several factors now combine to reduce GRT revenues that fund agency costs in FY2019. Most of these factors are expected to persist and are liable to undermine the sustainability of the funding for the Department and the Commission absent change.

In effect, the existing GRT rates now impose an annual cap on available funds for the Department and the Commission; in turn, the available funds are supplemented by any amounts that have been carried forward from prior years. In recent years, both agencies’ expenditures have exceeded GRT collections and both agencies have used funds carried forward from prior periods to pay for expenditures, although these trends have been more pronounced for the Department. For FY2019, the Department is under-funded by approximately \$800,000 relative to a \$5.9 million budget that is funded by the GRT. The Department also reported a net cumulative deficit of \$175,000 in FY2018. For FY2019, the Commission is under-funded by approximately \$127,000, but has \$4.4 million in funds that have been carried forward from prior years.

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Beginning in January of 2017, the Department has attempted to manage its budget to the available GRT funding. The FY2019 funding for the PSD is comparable to what it was a decade ago and is down substantially from FY2018. The Department's staffing levels have been reduced, and the current PSD staff that is funded through the GRT is below that in recent years.

The Commission's staffing levels are approximately the same as they were two decades ago, although they have fluctuated slightly both up and down during that time period.

In terms of regulatory workload for the PSD and the PUC, the future looks very different from the past. Going forward, the Department anticipates that the regulatory focus will shift away from reviewing major central station projects and contracts, and that the bulk of regulatory resources will be brought to bear on policy planning and reviewing local distributed generation projects. The Department expects new challenges and opportunities to emerge from the market entry and expanded services offered by solar and storage providers, as well as from new business models that will emerge from a combination of distributed generation, storage, and flexible loads. An increasing number of electricity sector activities require regulatory engagement, but the entities drawing on the PSD and PUC's regulatory resources are not subject to fees or the GRT. Thus, alternatives should be explored to address this situation. The options included in this report point toward a path that begins with ensuring adequate budgets for the Department and the Commission, with continued reliance on the GRT mechanism, but supplemented by auxiliary mechanisms to provide a better match going forward between activities and entities that generate the regulatory work and the funds that are paid to support these functions that are essential for protecting and advancing the public interest.

I. Introduction

1) Purpose of the Report

Public Act 11 of 2018¹ requires the Commissioner of Public Service to prepare a report regarding sustainable funding for the PUC and the PSD. Act 11 directs the PSD Commissioner, in consultation with the PUC, to

study and make findings and recommendations regarding the gross operating revenue tax on public utilities imposed under 30 V.S.A. § 22, as well as the assessments imposed under 30 V.S.A. §§ 20 and 21. The purpose of the study is to determine whether the existing statutory mechanisms for financing utility regulation in Vermont are appropriate and, if not, how they might be improved to achieve a sustainable general gross receipts tax fund position and to better serve the public interest.

The Act further identifies specific issues to consider under both the gross receipts tax and the “billback” authority granted to the PUC and PSD under Sections 20 and 21. The full text of the statutory requirement is included as Appendix I of this report.

2) Overview of the PUC and PSD

The PUC and the PSD oversee the essential public utility services in Vermont including electricity, natural gas, telecommunications, cable, and certain water systems. Before 1981, the Department and the Commission were part of a single utility regulatory body. They were separated on February 1, 1981, after which the planning and advocacy functions were assigned to the Department, while the quasi-judicial functions were assigned to the Commission (until recently known as the “Public Service Board”). Historically, the primary function of a utility regulatory body has been to provide oversight over the legality and economics of the rates charged by utilities to end-use customers. Thirty years ago, the vast majority of work conducted by the Department and Commission concerned the regulation of vertically integrated monopoly utilities, such as electric utilities that owned generation and supplied power to end-use customers. However, the regulatory responsibilities have evolved a great deal over the last thirty years. For example, more than half of the Commission’s workload now relates to generation projects owned by individuals or companies other than electric utilities. Furthermore, in addition to its traditional role of public advocacy before the PUC in rate proceedings and consumer protection matters, the role of the Department has expanded to now include responsibility for conducting planning processes for energy and telecommunications, reviewing regional and local energy planning, participating in regional transmission and wholesale energy markets regulation, broadband and cell service deployment, alternative rate regulation, and supervision of multiple energy efficiency utilities. All of these processes entail robust stakeholder engagement, and frequently entail developing and publishing authoritative planning documents, reports, testimony and other forms of information for

¹ See Section E.233.1 of Act 11; available at <https://legislature.vermont.gov/assets/Documents/2018.1/Docs/Acts/ACT011/ACT011%20As%20Enacted.pdf>.

public review and use. In other jurisdictions, this wide array of regulatory responsibilities and functions is typically housed in much larger agencies, or even dispersed across separate agencies.

3) Funding mechanisms for the PUC and PSD

The primary funding stream for the PUC and the PSD is the gross receipts tax (“GRT”), which is levied on the gross operating revenue of utilities that are subject to the regulatory jurisdiction of the PUC and PSD. The PUC is almost entirely funded through the GRT, although the PUC also relies on billbacks and accumulated reserves in the Gross Revenue Fund of the State Depository Account when annual GRT revenues are insufficient.² The Gross Revenue Fund supports approximately 25% of the Department’s total budget including approximately 85% of Department salaries. The Department also relies on the Gross Revenue Fund for purposes of balancing the difference between accumulated surpluses and deficits. It is also important to note that the Department collects funds in April of any given fiscal year to fund its activities for that same fiscal year. (For example, funds collected in April of 2018 were used to fund activities for FY2018 which ended two months later.)

The term “gross receipts tax revenue” refers to the total revenues derived from the operations of a rate-regulated entity, including the funds required to recover both capital and expenses of the enterprise. As described in detail below, the electric utilities provide the majority of the monies in the Gross Revenue Fund through the GRT; however, because of the structure of the GRT, declining electric utility revenues due to decreased kWh sales and net-metering are resulting in corresponding decreases in GRT revenues for the PUC and the PSD. Similar changes are occurring in the telecommunications sector, with the corresponding declining impact on the Gross Revenue Fund. The decrease in GRT revenues, along with increasing demands on regulatory resources, is resulting in a significant and chronic shortfall in available funding for the PSD and PUC, with both entities now operating at a deficit.³

4) Study approach

The Department conducted a review of its history to compare the historical funding mechanism with its regulatory responsibilities. In addition, the PSD and PUC inventoried the workload of staff based on specific functions to determine whether activities conducted by the regulatory bodies are consistent with the funding sources. Finally, the PSD conducted relevant research and a survey of other states’ funding mechanisms.

5) Pathways to revenue adequacy

Between FY2016 and FY2018, PSD agency revenues from the GRT declined by over 2.5%, while during this same period the costs at the Department increased by over 8%. On January 5th, 2017, the Department began to manage the deficits through cost-cutting measures that are expected to reduce its expenses by nearly 4.5% in FY2019. However, absent an infusion of additional funding, the Department will be forced to pare back the scope and depth of the regulatory work it has customarily performed.

² The Gross Revenue Fund is the fund into which the revenues raised through the Gross Receipts Tax are deposited.

³ While the Commission is experiencing an operational deficit, it continues to have roughly \$4.4 million in carry-forward funds. The Department is also experiencing an operational deficit, but is carrying a negative balance of \$175,000 as of June 30, 2018.

There are a number of pathways forward. One alternative is for the Department and the Commission to reduce staff levels and services. Alternative options that are explored in this report include the following:

- **Pathways to better link sector regulatory requirements with gross receipts taxes paid**
- **Pathways for ensuring system funding adequacy for the regulator through an alternative approach to budget authorization**
- **Options for supplementing the GRT revenues with other funding sources**

II. Essential Functions of the PUC and PSD

The Department and the Commission have different roles, but necessarily overlap in performing economic regulation, generation and transmission facilities siting, and otherwise implementing Title 30 generally. For both to work well, it is essential for the Department to be on sound financial footing. The Commission serves in a quasi-judicial capacity in issuing orders and permits, while the Department provides ratepayer advocacy and expert testimony in Commission proceedings, as well as statewide planning with respect to electricity and telecommunications. Further details of their specific roles are presented below.

Public Service Department

The Department is comprised of roughly 50 staff and is housed within the executive branch of Vermont state government. The Department is charged with representing the public interest in energy, telecommunications, water and wastewater utility matters.

The Department's mission is to serve all citizens of Vermont through public advocacy, planning, programs, and other actions that meet the public's need for least-cost, environmentally sound, efficient, reliable, secure, sustainable, and safe energy, telecommunications, and regulated utility systems in the state for the short and long term. The Department does this principally through its advocacy regarding economic regulation (i.e., setting rates and monitoring service quality for traditional utilities, and providing equivalent oversight for efficiency utilities). Specific functions of the Department include:

- ratepayer advocacy (representing the interests of the consuming public in rate cases and tariff change reviews);
- consumer protection;
- supervision and evaluation of service quality provided by public utility companies;
- supervision and direction of execution of all laws relating to public service corporations and firms and individuals engaged in such business;
- enforcement of permit terms (fines of up to \$5,000) and economic issues arising under the PUC rulemaking and administration;
- supervision of net-metering siting;
- interchange and interconnection of facilities of electric companies and other generators;
- electric and comprehensive energy planning;
- telecommunications and broadband planning (10-year telecommunications plan);

- utility resource planning efforts including integrated resource planning and distributed resource planning;
- energy efficiency implementation (i.e., advocacy regarding the efficiency charge, budgets and service quality performance measures) and oversight (including energy components of appliance and building codes, value of energy efficiency, energy efficiency targets);
- state energy policy implementation (e.g., Standard Offer Program, oversight of the Renewable Energy Standard implementation, reporting on pathways to meeting targets for greenhouse gas emissions reductions and renewable energy deployment);
- grid and energy policy direction and advocacy at regional and federal levels (i.e., ISO-NE New England States Committee on Electricity, Federal Energy Regulatory Commission);
- Clean Energy Development Fund administration;
- natural gas pipeline safety program administration and inspections;
- nuclear power generation and station oversight within state jurisdictional limits (e.g., decommissioning);
- siting of generation and transmission facilities (i.e., Section 248 cases);
- consolidations and mergers of public service corporations;
- supervision of jurisdictional power supply purchases;
- supervision and regulation of cable television systems;
- supervision and regulation of telecommunications companies (within limits of state jurisdiction);
- supervision and regulation of municipal plants;
- supervision and regulation of electric cooperatives;
- administrative rule formulation and related advocacy for adoption;
- expert subject-matter testimony at the request of legislative committees;
- public safety,⁴ E-911,⁵ clean energy finance, compliance with CPG requirements.

Public Utility Commission

The PUC is a three-member, quasi-judicial commission that has approximately 23 full-time equivalent (“FTE”) staff, including 8 FTE attorneys, 7 FTE analysts, and 8 FTE administrative staff. The PUC’s mission is to ensure the provision of high-quality public utility services in Vermont at minimum reasonable costs, consistent with the long-term public good of the state. The Commission strives to achieve its mission by providing independent, fair, and efficient means of resolving public utility disputes, and by guiding the development of state utility policies and rules for public utilities to best serve the long-term interests of

⁴ The PSD is part of the State of Vermont, Emergency Operations Center, and helps to coordinate a response among state agencies and energy and telecommunications recovery in response to statewide or regional emergencies. The PSD also has a significant role in the oversight and advocacy relevant to the handling and management of both high and low level radioactive waste from the Vermont Yankee Nuclear Facility.

⁵ The PSD oversees the management and contracting with the Universal Service Fund fiscal agent who is responsible for managing the funds used to provide E-911 service in Vermont.

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Vermont and its residents, all as defined in Title 30 of the Vermont Statutes Annotated. The Commission's principal responsibilities are to:

- supervise the rates, quality of service, and financial management of Vermont's public utilities (electric, gas, telecommunications, and private water companies);
- review the environmental and economic impacts of proposals to build new electric generation and transmission facilities, natural gas infrastructure, and wireless telecommunications towers, and to modify existing facilities;
- implement and administer the State's renewable energy programs;
- review the economic impacts of proposals to purchase energy supply;
- evaluate the financial aspects of nuclear plant decommissioning;
- review rates paid to independent power producers;
- oversee the statewide Energy Efficiency Utility program;
- monitor the safety of certain hydroelectric dams; and
- supervise certain aspects of cable television companies.

A. Workload Analysis -- New demands for regulatory services

Historically, the work of the Department and the Commission consisted almost exclusively of economic regulation of traditional vertically integrated utilities. Electric distribution utilities in Vermont were responsible for building generation or engaging in partnerships or contracts with other systems (largely other distribution utilities) to provide generation service to ultimate customers. Within the past few decades this construct has changed considerably. In the last decade, the vast majority of new generation projects considered and evaluated for siting within Vermont have been proposed by companies and producer-consumers, not electric utilities. Thus, it is now the case that a large, additional portion of the work involves regulatory oversight of the impacts and activities of new actors, primarily developers and merchant generators, or companies that facilitate self-generation opportunities for end-use consumers. This trend will likely increase as the range of service providers and activities grows with low-cost generation, storage, and flexible loads that all interact with the central grid in ways that will be managed by either the utilities or new agents, and that may increase pressure to build-out the system to meet new requirements.

The challenges presented for the regulators by these changes are not all on the downside. The need for rigorous regulatory oversight in areas that move from a monopoly utility landscape to a competitive market landscape will likely shift the regulatory focus away from reviewing large projects or contracts involving utility activities to instead monitoring emerging market frameworks, utility interactions with new market-based agents, and fair competition. On one hand, competition among these new market actors will likely provide some workload relief for regulators as market discipline emerges to foster innovation and beneficial competitive dynamics that provide a check on prices and incentivize improvements in quality. On the other hand, regulators will need to perform the new work attendant to the challenges that are bound to arise from finding the proper boundaries of utility participation in emerging areas, and the interactions between monopoly wires services and these new market actors.

The GRT defrays the cost of the PUC and PSD full-time professional staff --- subject-matter experts who have specialized knowledge and analytical capabilities pertaining to energy siting, energy efficiency,

telecommunications, and the regulation of utilities across the board. The existing billback permission authorized by statute is used -- but only sparingly -- to temporarily retain specialists for a case who have particular subject-matter expertise beyond the capabilities of the regulatory staff, or in exceptional cases that generate materially larger and deeper workloads that otherwise are beyond the capacity of existing staff to carry without displacing or materially disrupting the performance of the agency's remaining responsibilities. The existing billback authority does not lend itself to being used as a funding source for ongoing regulatory work for which the Department and the PUC need permanent staffing and resources.

Both the Department and the Commission undertook various analyses to identify work activities in relation to the industries that are regulated and the associated funding from the gross receipts tax. The first analysis by the Commission is of caseload activity. Table 1 shows the "new cases filed."

Table 1 --- New Case Filings with the PUC

PUC Workload Proxies						
New Cases Filed with the Commission						
	FY17	FY17 % of All Cases Filed (incl. net-metering)	FY17 % of Non-Net-Metering Cases Filed	FY18	FY18 % of All Cases Filed (incl. net-metering)	FY18 % of Non-Net-Metering Cases Filed
Net-Metering Cases¹						
NM registrations	3114	88.07%		3190	80.88%	
NM applications	102	2.88%		7	0.18%	
NM petitions	36	1.02%		74	1.88%	
Other (minor amendments, extensions, et	13	0.37%		215	5.45%	
Total net-metering cases	3,265	92.34%		3,486	88.39%	
All Other Cases						
Electric (not net-metering or merchant)	87	2.46%	32.10%	158	4.01%	34.50%
Merchant generation and transmission	28	0.79%	10.33%	35	0.89%	7.64%
Gas	9	0.25%	3.32%	23	0.58%	5.02%
EEU	8	0.23%	2.95%	6	0.15%	1.31%
Telecom (not 248a or 248(n))	46	1.30%	16.97%	65	1.65%	14.19%
Telecom 248a and 248(n)	64	1.81%	23.62%	156	3.96%	34.06%
Water	15	0.42%	5.54%	7	0.18%	1.53%
Cable	9	0.25%	3.32%	4	0.10%	0.87%
Multi-industry	5	0.14%	1.85%	4	0.10%	0.87%
Total other cases	271	7.66%	100.00%	458	11.61%	100.00%
Total all cases	3,536	100.00%		3,944	100.00%	

This chart reflects the volume and type of filings that are consistently drawing on the regulatory resources of the PUC and the PSD. This chart is particularly informative when viewed in conjunction with the workload allocation charts later in this section, which show that net-metering requires roughly a third of Commission staff time as well as considerable PSD staff time (roughly 7%). This indicates the significant workload presented by the number of larger net-metering projects that frequently consume

nearly as much staff resources as a full, Section 248 case.⁶ It bears noting too that while the small net-metering registration cases (“NMR”) account for the vast majority of cases filed (3,191 of the 3,945 of the cases in FY2018 or about 81%), they nonetheless require significant support from administrative staff at the PUC and the PSD. Approximately 2.5 FTE at the Commission alone are occupied with processing these smaller net-metering projects, even though they are filed through an electronic case management system.

It is also important to recognize that a significant share of the work of the Department and the Commission is associated with projects that are adding substantial electricity capacity and facilities to the Vermont electrical system but that do not remit funds to support the PUC or the PSD because they are not required to pay the gross receipts tax. Between July of 2013 and June of 2018, 11,565 cases were filed by companies that are not obliged to pay the gross receipts tax. These companies have many generation projects in Vermont, with the potential to add over 450 MW to the Vermont mix (the current Vermont peak is approximately 930 MW). The analysis below shows not only the substantial volume of such cases, but also that this volume is materially higher than the volume of such cases even just a few years ago.

Table 2 – Number of Cases Filed by Merchant and Net-Metered Projects

Number of PUC Cases Filed by Persons or Companies That Do Not Pay the Gross Receipts Tax					
Type of Case	FY18	FY17	FY16	FY15	FY14
Generation Projects > 5 MW	0	1	1	0	0
Generation Projects >500 kW through 5 MW	6	8	15	3	11
NM Generation Projects >50 kW through 500 kW	191	145	204	126	58
NM Generation Projects >15 kW through 50 kW	107	51	32	40	65
NM Generation Projects <15 kW	2,973	3,054	1,998	1,238	925
Transmission Projects (merchant transmission lines, national grid projects)	0	1	1	5	2
Other Non-Utility Cases (e.g., sale of a company, standard-offer contract matters, interconnection disputes, Rule 4.100 matters, met towers, NM minor amendments, NM extension requests)	238	29	23	8	6
Total	3,515	3,289	2,274	1,420	1,067

⁶ The larger net-metering cases involve generation projects that are designed for an output just shy of 500kW – the jurisdictional threshold for triggering a full Section 248 permitting review.

Table 3 – Amount of Additional Capacity Filed by Merchant and Net-Metered Projects

kW of Generation Filed by Persons or Companies That Do Not Pay the Gross Receipts Tax					
Type of Case	FY18	FY17	FY16	FY15	FY14
Generation Projects > 5 MW	0	20,000	20,000	0	0
Generation Projects >500 kW through 5 MW	24,070	23,000	50,990	49,133	19,720
NM Generation Projects >50 kW through 500 kW	46,690	30,407	52,339	28,803	10,271
NM Generation Projects >15 kW through 50 kW	3,261	1,591	846	1,027	1,243
NM Generation Projects <15 kW	21,106	21,314	12,722	7,904	5,688
Total	95,127	96,312	136,897	86,867	36,922

Table 4 – Net-Metered Cases Over Time

Number of Applications for Net-Metering Certificates of Public Good						
	FY13	FY14	FY15	FY16	FY17	FY18
Number of Applications Filed	925	1062	1408	2251	3252	3271

Another metric that reflects the work of the Department and the Commission is the number of hearings and workshops convened.⁷ Merchant generation and merchant transmission projects accounted for fully 28% and 24% of the number of hearings and workshops in 2017 and 2018 respectively. Net-metering projects accounted for another 17% in 2018 and activities of the energy efficiency utilities accounted for 7%. The companies that filed the petitions that necessitated these hearings and workshops are not required to pay the gross receipts tax.

Table 5 – Number of Orders and CPGs Issued

Number of orders and CPGs issued				
	FY17	FY17 Percentage	FY18	FY18 Percentage
Electric (not merchant or net-metering)	324	21.12%	246	18.14%
Merchant generation and transmission	276	17.99%	310	22.86%
Net-metering	511	33.31%	355	26.18%
Gas	65	4.24%	46	3.39%
EEU	32	2.09%	44	3.24%
Telecom (not 248a or 248(n))	145	9.45%	64	4.72%
Telecom 248a and 248(n)	126	8.21%	257	18.95%
Water	13	0.85%	15	1.11%
Cable	37	2.41%	10	0.74%
Multi-industry	5	0.33%	9	0.66%
Total orders and CPGs issued	1,534	100.00%	1,356	100.00%

⁷ It is important to remember that every hearing that the Commission convenes requires the participation of the Department by statute. 30 VSA § 2.(b).

Number of hearings and workshops held				
	FY17	FY17 Percentage	FY18	FY18 Percentage
Electric (not merchant or net-metering)	49	29.17%	37	30.08%
Merchant generation and transmission	47	27.98%	30	24.39%
Net-metering	32	19.05%	21	17.07%
Gas	15	8.93%	14	11.38%
EEU	12	7.14%	9	7.32%
Telecom (not 248a or 248(n))	2	1.19%	4	3.25%
Telecom 248a and 248(n)	9	5.36%	1	0.81%
Water	1	0.60%	2	1.63%
Cable	1	0.60%	1	0.81%
Multi-industry	0	0.00%	3	2.44%
Administrative rule	0	0.00%	1	0.81%
Total	168	100.00%	123	100.00%

But even beyond the newer workload from rising industries, the Department and the Commission invest considerable regulatory resources toward addressing activities and areas that traditionally have contributed little toward the conduct of regulatory activities. As an example, the Public Service Department employs one full-time nuclear engineer to provide a wide range of services including oversight of the facility on behalf of the state, to monitoring and engaging with federal regulators at the Nuclear Regulatory Commission on matters of concern to Vermont and the communities that are local to the Vermont Yankee Nuclear Power facility that ceased production in December of 2014, but has been most recently engaged in proceedings related to the sale of the facility that might lead to an earlier decommissioning of the facility. The expertise provided is not directly covered by any existing revenue source or the gross receipts tax.⁸

The same holds for most of the Department's work related to the role that the Department plays in promoting the development of broadband communications. The Department fosters broadband through its planning, mapping, coordination, and community outreach activities. The Department also oversees administration of the Universal Service Fund as it relates to broadband. Again, the Department's role here is not directly covered by any existing revenue source or contributions toward the gross revenue fund from services associated with broadband.

⁸ Since the sale of this Vermont Yankee Nuclear facility to Entergy in 2002, to the extent the state jurisdictional regulation of this facility has been exercised through contested case litigation hearings and related activities, some of the regulatory resources brought to bear in PUC proceedings (i.e., private-sector counsel and most testifying experts) have been billed back to the merchant-owners of the facility. However, the billback authority has not been used to cover the cost of PSD in-house attorneys, experts, or, as noted in the text, the cost of carrying a full-time state nuclear engineer position, toward which no gross receipts tax revenues have been paid by the VYNPS owners since 2002. That said, the wholesale costs generally and all contracts with our utilities represent a component of wholesale costs that comprise the power costs of the 17 distribution utilities that are directly taxed through the GRT.

Even more broadly, the GRT fund provides revenues for the Department’s staff, but the Department is responsible for 10 separate funds, of which the Gross Revenue Fund comprises only 25% of the overall funds. (See Appendix IV.) Four of the funds provide some support for staffing. The other four funds are managed through the staffing resources funded through the GRT mechanism.

Department and the Commission Workload Survey

The Department and the Commission also surveyed staff concerning the use of their time. The Commission has three Commissioners and approximately 23 FTE staff, with the GRT providing approximately 95% of its funding. Table 6 below shows how Commission employees allocate time among the regulated activities. Although these figures suggest that more time is spent on net-metering than do the hearing and workshop table, the data reinforces the point that almost half of employee time is associated with activities that fall outside supervising the regulated utilities that pay the gross receipts tax.

Table 6 – Commission Percentage of Personnel Costs by Industry and Work Function

Division		Industry Group - Percentage of Personnel Costs								Sub-Total
		Electric Utility	Merchant Generation	Net-metering	Telecom	Cable	Gas	Water	Energy Efficiency	
PUC	Regulation	11.70%	2.13%	1.11%	4.07%	2.05%	3.09%	2.20%	2.94%	29.28%
	Policy	4.51%	2.91%	2.66%	0.86%	0.05%	0.43%	0.11%	2.73%	14.27%
	Siting	3.72%	9.09%	34.49%	0.46%	0.00%	1.21%	0.00%	0.00%	48.96%
	Compliance	1.59%	1.96%	1.11%	0.10%	0.27%	2.38%	0.05%	0.05%	7.50%
	Sub-total	21.52%	16.09%	39.35%	5.49%	2.36%	7.10%	2.36%	5.72%	100.00%

The Department conducted a similar analysis of staff workload. In 2018, the Department’s staffing was equivalent to 49.5 full time employees, with approximately 42.5 positions funded through the GRT. That figure is down slightly from 2016 but has been steady in the last 5 years. The Department also applied relative cost factors based on personnel costs. As Table 7 below demonstrates, much of the Department’s staff time is spent on electricity-related matters, with roughly 20% of the Department

Table 7 – Department Percentage of Personnel Costs by Industry and Work Function

Department-wide	Work Function	Utility/Petitioner Type - Percentage of Personnel Costs										Sub-total
		Electric	Merchant Generation		Telephone	Cable	Gas	Water	Energy Eff	Net Metering	Other	
			Large Scale	Small Scale								
	Regulation	5.70%	0.51%	0.48%	2.73%	0.87%	0.52%	0.03%	3.90%	0.21%	0.59%	15.54%
	Policy	4.80%	0.57%	0.53%	1.44%	1.23%	0.92%	0.25%	4.17%	1.22%	0.06%	15.19%
	Investigatory	2.78%	1.22%	0.54%	2.34%	1.24%	0.40%	0.03%	1.79%	0.66%	0.00%	11.00%
	Rate Case	0.63%	0.49%	0.00%	1.25%	0.89%	0.00%	0.00%	0.00%	0.00%	0.59%	3.85%
	Other Petitions	7.32%	0.00%	0.31%	0.28%	0.15%	1.73%	1.80%	0.00%	0.04%	0.59%	12.23%
	248 Filings	3.32%	0.51%	0.12%	0.09%	0.37%	0.17%	0.12%	0.41%	0.31%	0.59%	6.01%
	Enforcement	3.48%	2.52%	4.35%	1.83%	0.29%	0.44%	0.29%	0.29%	4.40%	0.00%	17.89%
	Advocate	2.60%	2.70%	0.40%	1.30%	1.13%	7.38%	0.15%	1.98%	0.27%	0.36%	18.29%
	Sub-Total	30.63%	8.52%	6.74%	11.27%	6.16%	11.57%	2.68%	12.54%	7.11%	2.79%	100.00%

staff time and resources associated with cable, telecommunications and water. The Commission also spends a significant share of employee time on the electricity sector, but within the sector, 55% of employee time is spent on merchant generation and net-metering that do not pay the GRT.

Summary and Conclusions

Telecommunications and cable activities account for a substantial share of the caseload activity (excluding small net-metered projects), but account for a much smaller share of the staff work. The telecommunications activities account for about 11.3% of the activities of the Department, and about 5.5% of the staff work of the PUC. Cable accounts for about 6.2% of Department activities and about 2.4% of the Commission's work, but the contributions from both combined are over 30% of the Department revenues (see next section). It warrants comment, however, that the figures above belie the need for greater attention to the telecommunication sector. With more telecommunications staff resources, the Department could fruitfully apply needed services to both regulated and unregulated sectors of the industry.

There is a much closer nexus between Department funding and its activities in other areas, although the split between activities like siting and certification from independent providers and those of regulated providers appears to be misaligned. Over 22% of Department time and personnel costs are associated with merchant generation that do not produce tax revenues that support the PSD. A comparable figure for Commission employees is about 55%. Overall, the electricity accounts for over 50% and 77% (respectively) of the costs of regulatory utility services provided to the Department and the PUC, or roughly comparable to the 61% of gross receipts tax revenues associated with sector activities (the 61% excludes the electricity-related energy efficiency GRT funds).

Gas and water appear to engender slightly greater activity in relation to the funding they provide for the PSD and the PUC. The costs of personnel services for the Department associated with this regulatory work comes to almost 12% of the agency's costs, while that of the Commission is associated with about 7%. However, the related GRT revenues account for only 3.6% of total GRT funds collected.

Water accounts for about 2.5% of staff activities, but it also generates a much smaller share of GRT revenues.

III. Existing Funding and Budget Experience

This section identifies the overall levels of funding by regulated industry, the relative contributions of these industries to gross receipts tax revenues, and the underlying trends in the demand for services from these industries that call into question the viability of continuing to rely on the gross receipts tax mechanism to provide adequate and sustainable funding for the PSD and the PUC. Finally, this section concludes with a discussion of the challenges for the future associated with continued reliance on the gross receipts tax in the absence of supplemental funding sources.

A. Current funding through the Gross Receipts Tax

The gross receipts tax is assessed on the "turnover" or the gross operating revenues of the utilities that are rate-regulated by the PUC and the PSD. Gross operating revenues represent the revenues garnered by the utility companies on the sale of electricity, natural gas, telecommunications, cable and water services. Typically, the gross revenues follow the sales volume. The greater the volume of sales, the greater the revenues, assuming costs are closely linked to sales volumes. The correlation, however, will break periodically as the numbers and graphics below demonstrate.

The framework applies to all companies that fall under Title 30, Section 203. The industries included in Table 8 represent those paying the GRT.

Table 8 – Applicable Gross Receipts Tax by Sector Since 1973

Type of Company	Electric	Telephone	Gas	Water	Cable TV	Customer Owned Coin Operated Telephone Companies	For All Other Companies (i.e. sewer)
FY11-FY16	0.005	0.0050 (or \$500 if greater)	0.003	0.0010 (or \$5.00 if greater)	0.0050 (or \$25.00 if greater)	Customer-coin-operated telephones with total annual revenues of less than \$5000, the choice of either .0050 of gross from telephone revenues or the amount of \$20.00	0.001

Table 9 - Gross Revenue Tax Collected for 2010-2018

		2010	2011	2012	2013	2014	2015	2016	2017	2018
Electric		\$ 4,193,263	\$ 4,445,824	\$ 4,782,085	\$ 5,008,103	\$ 5,310,619	\$ 5,470,690	\$ 5,507,514	\$ 5,487,512	\$ 5,505,661
Telephone		\$ 1,836,859	\$ 1,759,004	\$ 1,995,423	\$ 1,846,454	\$ 1,799,615	\$ 1,826,415	\$ 1,747,995	\$ 1,571,085	\$ 1,419,576
Cable		\$ 764,061	\$ 843,298	\$ 907,349	\$ 1,005,051	\$ 1,056,332	\$ 1,071,971	\$ 1,173,788	\$ 1,247,667	\$ 1,325,924
Gas		\$ 347,655	\$ 284,004	\$ 301,622	\$ 282,760	\$ 305,528	\$ 347,410	\$ 358,143	\$ 302,912	\$ 310,285
Water		\$ 1,675	\$ 1,530	\$ 1,172	\$ 2,148	\$ 1,483	\$ 1,549	\$ 1,304	\$ 1,181	\$ 1,008
Total		\$ 7,143,514	\$ 7,333,660	\$ 7,987,651	\$ 8,144,516	\$ 8,473,577	\$ 8,718,035	\$ 8,788,743	\$ 8,610,357	\$ 8,562,453
Department	60%	\$ 4,286,108	\$ 4,400,196	\$ 4,792,591	\$ 4,886,710	\$ 5,084,146	\$ 5,230,821	\$ 5,273,246	\$ 5,166,214	\$ 5,137,472
Commission	40%	\$ 2,857,406	\$ 2,933,464	\$ 3,195,061	\$ 3,257,806	\$ 3,389,431	\$ 3,487,214	\$ 3,515,497	\$ 3,444,143	\$ 3,424,981

The Department and the Commission typically develop budgets that are tied to the revenues that are realized from the GRT as set in statute. Historically, the revenues from the GRT have proven adequate, or at least have remained stable over time. The GRT rates applied to the electricity sector have remained largely unchanged for 45 years.⁹

B. Declining gross operating revenues and tax receipts

The electricity sector is the largest industry regulated by the Department and the Commission, accounting for almost two thirds of GRT revenues. The balance comes primarily from a combination of

⁹ The rates for natural gas increased between 1973 and 1995 from 0.002 to 0.003 of gross operating revenues. The rates were adjusted down slightly some time in the 1990s for some services and returned from 0.45% to 0.5% in 1996 (Act 155 of 1997 repealed further revisions 1995, No. 182 (Adj. Sess.), § 25, eff. May 22, 1996; 1997, No. 155 (Adj. Sess.), § 10.

the natural gas, telecommunications, and cable sectors, with water and wastewater providing approximately 1/10th of one percent of GRT revenues. Of the sectors subject to the GRT, only cable communications is showing steady growth in revenues over time. Telephone has been showing a precipitous decline in recent years. Over the four years from 2015 to 2018, GRT revenues from telecommunications declined by over 22%, or roughly 8.1% annually.

Figure 1 -- Gross Receipts Tax Revenue 2002-2018

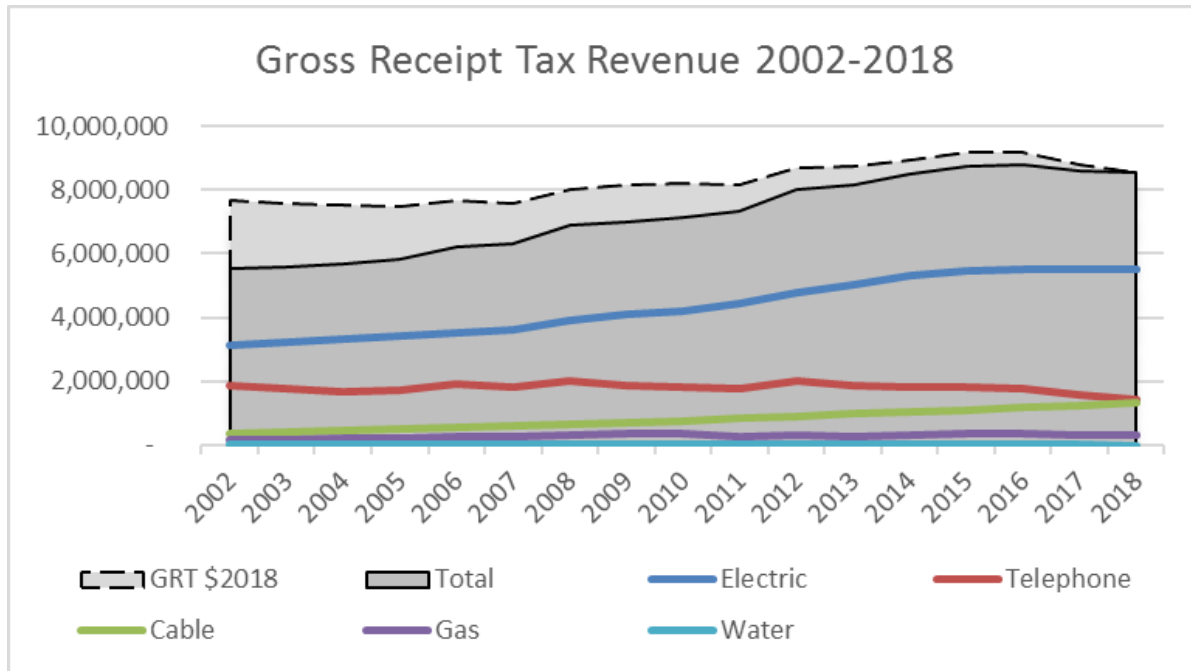


Figure 1 shows how revenues have changed over the last 16 years. Revenues from electricity grew significantly between 2002 and 2015 but remained relatively flat to declining thereafter. Revenues from the cable sector are increasing, while those from telecommunications are showing a precipitous decline. Overall, GRT revenues have declined between 2016 and 2018 by 2.6%, or roughly 1.3% annually. This is a pattern that appears to represent an expected norm for the future.

Table 10 -- Gross Receipts Tax Revenue 2015-2018

	2015	2016	2017	2018	FY 2016 - FY 2018
Electric	5,470,690	5,507,514	5,487,512	5,505,661	0.0%
Telephone	1,826,415	1,747,995	1,571,085	1,419,576	-19%
Cable	1,071,971	1,173,788	1,247,667	1,325,924	13%
Gas	347,410	358,143	302,912	310,285	-13%
Water	1,549	1,304	1,181	1,008	-23%
Total	8,718,035	8,788,743	8,610,357	8,562,453	-2.6%
Department	5,230,821	5,273,246	5,166,214	5,137,472	
Public Utility Commission	3,487,214	3,515,497	3,444,143	3,424,981	

1. Telecommunications and Cable

As shown in Table 8, the GRT rate that applies to telecommunications is 0.5%, comparable to that applied to gross receipts from electricity.

At the time that the GRT rates were last set, the telecommunications industry was still at the early stages of a transformation to a more competitive framework with the passage of the Telecommunications Act of 1996 (the first major overhaul of telecommunications law in 62 years) and the introduction of widespread availability of the internet in 1994-1995.

The telecommunications industry has seen a transformation over the last 20 years. The state has witnessed a steady decline in traditional landline telephone service. Consumers are now favoring Internet-protocol-based voice services, which are increasingly delivered “over the top” using consumers’ broadband internet connections or through managed services such as those offered over cable-modem systems. With an abundance of different voice services, prices for basic voice have decreased. At the same time unresolved questions over the state’s regulatory authority of such services have caused inconsistency in how these services are regulated.

Consumers are favoring data packages that include voice, but voice is no longer the primary consideration for purchasers of wireless communications. The value of the voice component has decreased as wireless providers position themselves to make the most of their data networks. Competition for these services is fierce and has resulted in lower prices. These trends can explain why overall revenues from telecommunications services have decreased.

2. Electricity sales outlook

Electricity demand represents the single largest segment of the funding source for the Department and the Commission. In 2017, GRT revenues from retail sales accounted for \$5.5 million of the \$8.6 million, or roughly 64% of GRT revenues. Sales of electricity are expected to continue on a path of flat to declining loads over the coming decade. These trends hold true for both Vermont and the nation and are due to at least four drivers that combine to produce a trend toward improving end-use energy efficiency performance and moderating household demand for electricity.

The four drivers of shift from robust GRT revenue growth to flat to declining revenues from the power sector include:

- electricity is a mature industry with a high relative penetration of major loads like refrigeration, air conditioning, and water heating,
- declining sales due to the relative influence of appliance standards, and utility energy efficiency programs,
- declining retail sales associated with the relatively recent entry of a new class of producer-consumers that net meter and so displace electric distribution utility retail sales, and
- modest increases in the price of retail electricity relative to wholesale costs that account for roughly two-thirds of electricity costs.

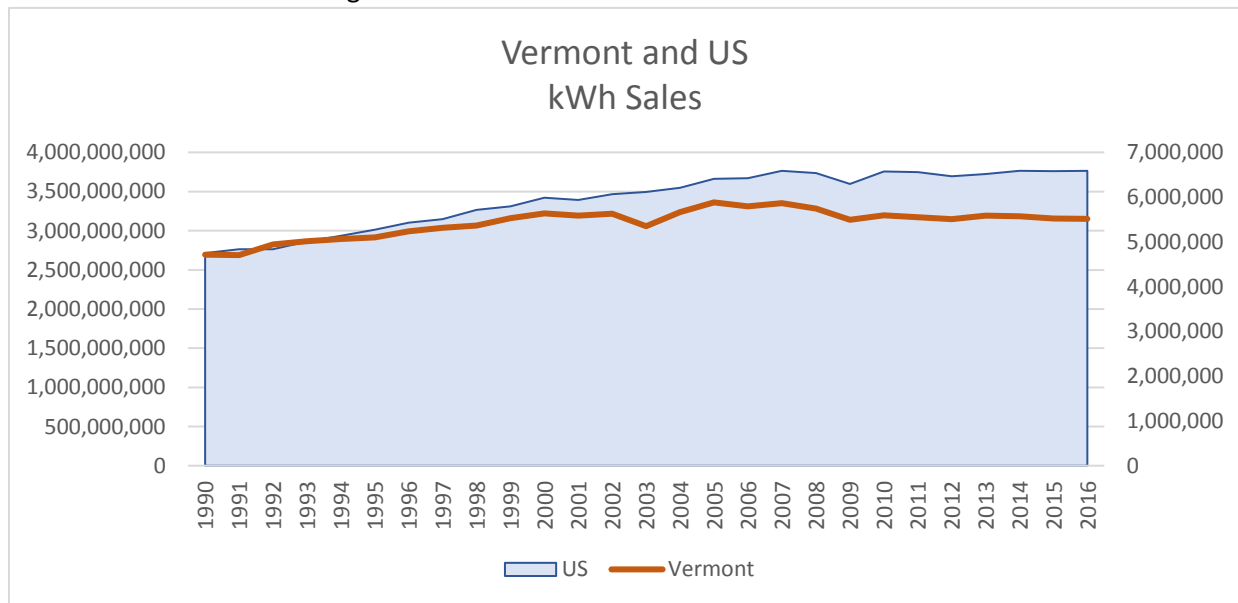
Likely offsetting trends, at least partially, will come from the electrification of buildings and transportation, but these impacts are more likely to arrive at scale 5 to 10 years from now.

According to the US Department of Energy (DOE), the sector nationally is reaching a degree of maturity that will foster only modest growth looking forward.

Electricity consumption in the United States declined in only three years between 1950 and 2007. However, there were year-over-year declines in six of the years from 2007 through 2017, with the largest year-over-year drop (about 4%) occurring in 2009. One contributing factor to that drop-in electricity consumption was the economic downturn in late 2007 through 2009, which led to a large decrease in electricity sales to the industrial sector. Other factors, such as efficiency improvements associated with new appliance standards in buildings sectors and overall improvements in the efficiency of technologies powered by electricity, have slowed electricity demand growth and may contribute to slower future growth. In the Annual Energy Outlook 2018 Reference case, total U.S. electricity use grows by an average of less than 1% per year from 2017 to 2050.¹⁰

These national trends are more pronounced in Vermont due to relatively ambitious policy pathways for advancing energy efficiency and net-metering in the state. Electricity demand in Vermont historically grew in excess of 2% until 1990, grew at a pace of 1.5% from 1990 through 2005, and has since shown a modest year-over-year decline.

Figure 2 – Vermont and US kWh Sales 1990 - 2016



Vermont Drivers of Declining Electricity Sales and Reductions in Revenue Growth

Since 2006, Vermont has dramatically ramped up its utility investments in energy efficiency programs. Since that year, energy efficiency has resulted in, on average, about a 2% reduction in sales for each year (ranging from 1.5% to 2.5%). All told, the activities of Vermont energy efficiency utilities are credited with reducing electricity sales by roughly one-eighth.

¹⁰ EIA, www.eia.gov.

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In the last several years, trends in declining electricity sales and revenues have been further affected by a significant rise in behind-the-meter investments in solar generation through net-metering.¹¹ Similar trends are evident in the national electricity data but have been longer in the making and deeper in their impact in Vermont. Penetration of net-metering solar PV has been especially strong since 2014. Customer requirements from net-metering, especially from PV net-metering are now over 4% of electricity requirements in the state.¹² Net-metering is expected to account for more than a third of summer peak by 2019.

Declining electricity sales would reasonably be expected to result in lower retail revenues, but as Figure 3 demonstrates, in Vermont the cost of utility services and thus the retail revenues continued to increase even with flat sales after 2005 and through 2013. In effect, the correlation broke for a period of 8 years (2005 - 2013) as the cost of utility services both in Vermont and nationally were driven up by the escalating costs of wholesale electricity that ultimately filtered down into retail prices. In New England wholesale costs peaked in 2008 and lingered there before reaching a second relative high around 2014 following weather events that caused natural gas prices to escalate. Since then wholesale costs have declined and have helped to keep rates (and operating revenue) on a flat to declining trajectory. The years from 2016 to 2018 have featured wholesale market prices and costs to utilities that are at historic low levels for ISO-NE. The earlier impacts of these wholesale cost increases were more immediately felt in the retail-choice states, that lacked Vermont's long-term power contracts and embedded resource mix that helped to act as a buffer. In summary, the combination of low sales and low wholesale market prices, both of which are expected to persist for the coming decade translate into flat to declining revenues (circled area from 2013 through 2017) that are expected to continue into the future.

Natural gas prices have a significant impact on electricity prices in New England because natural-gas-fired power plants generally set the wholesale market price for power. Looking forward, natural gas prices are expected to remain at low levels relative to recent decades due to innovations in discovery and production. The last 10 years have corresponded to a period in which the US was a natural gas importer and is now an exporter with some of the lowest prices around the globe, an abundance that was not imagined a short while ago. This downward pressure on wholesale market power costs means that declining retail electricity sales will likely lead to declining gross operating revenues for electric utilities and thus further reductions to the gross receipts tax revenues from the electricity sector for the foreseeable future.

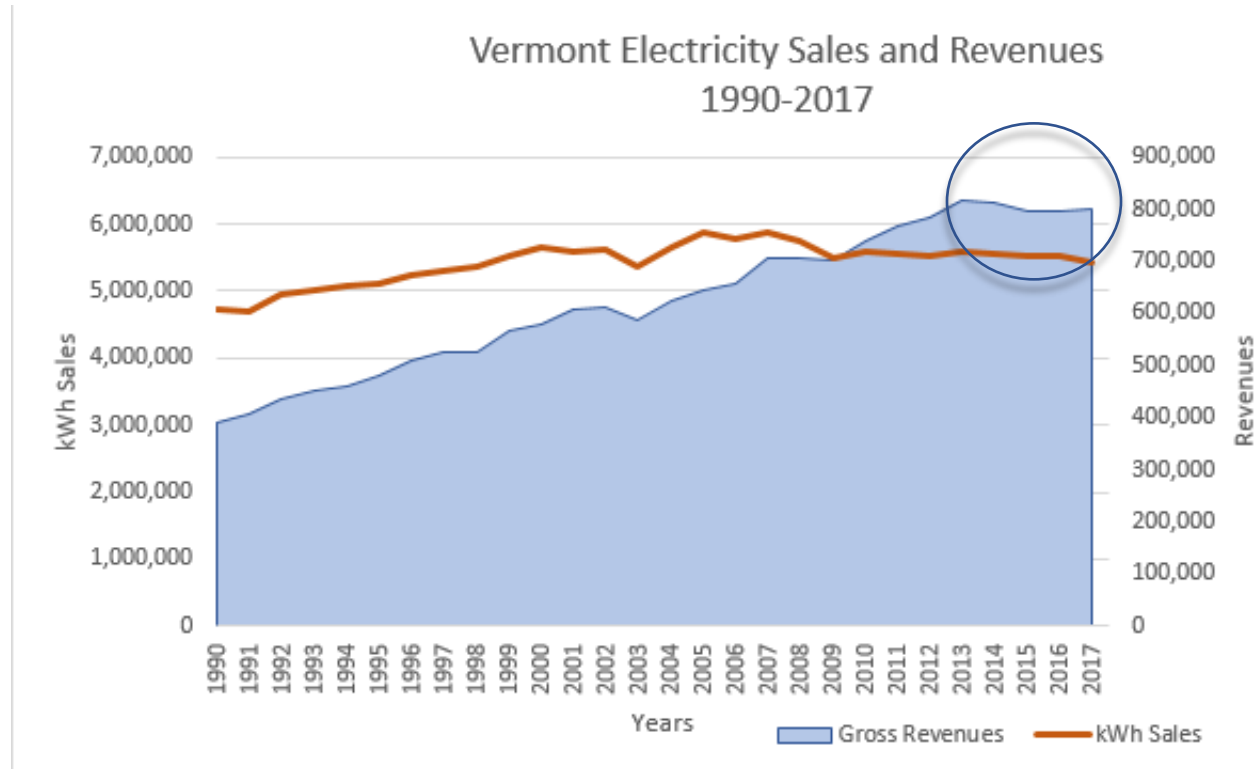
In addition to cost reductions in the wholesale market, Vermont utilities have also experienced a reduction in the price of electricity relative to neighboring states in New England. These states draw power from the wholesale markets available to Vermont, yet have experienced price increases relative to Vermont from 2013 through 2018. There are a number of contributing factors. Vermont utilities likely benefited from the open position that followed the closure of Vermont Yankee in 2014. The period that followed was a period of much lower wholesale energy costs. Merger savings from the GMP-CVPS merger also provides some explanation for the savings. During the period from 2013 through

¹¹ Figure 1., In re: biennial update of the net-metering program, Docket 18-0086- INV, Order of 5/1/18, available at <https://epuc.vermont.gov/?q=node/64/128318>

¹² Based on 92 MW of capacity reported to EIA and a 15% capacity factor relative to sales.

2022, GMP committed to returning \$144 million to ratepayers from the system efficiencies realized. In 2013, Vermont rates were roughly the same as the whole New England region. By 2017, Vermont began to enjoy a 1.5 cent per kWh advantage.¹³

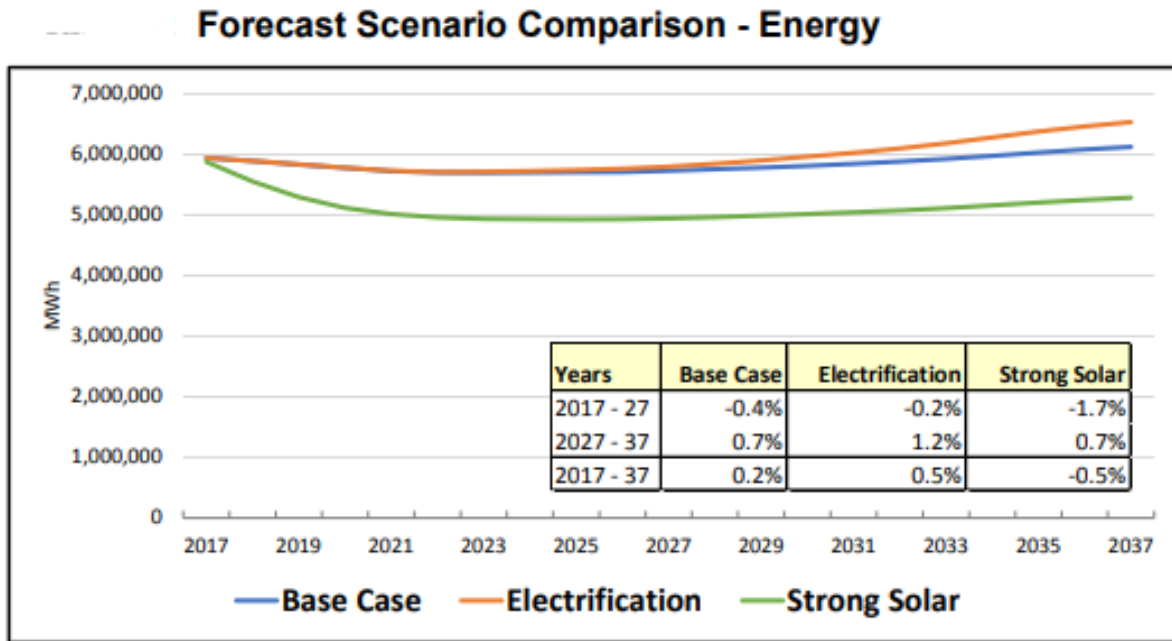
Figure 3 – Vermont Electricity Sales and Retail Revenue



Partly offsetting these trends are the expected increases in electrification from transportation and building heating. The figure below is from the VELCO Long Range Plan 2018 and summarizes the net effects of these trends. As reflected in the base case forecast, sales continue to decline in the near term with additions to continued net-metering and trends in efficiency. Alternative scenarios represent relatively aggressive assumptions for electrification and solar development. The red line reflects the net effect of growth from new building and transportation loads on the demand for electricity. The strong solar scenario reflects a much more ambitious effort relative to the base case to increase adoption of behind-the-meter solar PV of 1000 MW by 2025. Under all scenarios, the forecast shows a decline in energy demand and sales over the coming decade.

¹³ www.eia.gov. Energy Browser

Figure 4 – VELCO Long Term Forecast of Energy Demand¹⁴



C. Funding Streams Other than the Gross Receipts Tax

The PSD manages a large volume of funds that pass through the Department, but that generally do not pay for staff resources and operating costs, such as rental space. For FY2019 these include the balance of a one-time appropriation of general funds (\$7,775), the Low-Level Radioactive Waste Fund (\$100,000), interdepartmental transfers (\$50,000), the billback fund (excluding EEU - \$3,112,628), Telecommunications Services for the Deaf Fund (\$500,000), the ARRA Revolving Loan Fund (\$1,010,000), and the Vermont Telecommunications Authority (\$166,498).

In addition, the Department manages or derives monies from 9 funds apart from the Gross Revenue Fund. Of these 10 other funds, four contribute to the salaries of the Department’s staff. The largest of these in terms of staff contributions comes from the Energy Efficiency Utility activities, which provides funding for several staff at a level of \$325,000 in FY2019 covering approximately 3 employees. The Department also relies on EEU funding through the GRT mechanism. The second largest of these is the federal funding received largely from the State Energy Program and PHMSA funding (Pipeline Safety and Underground Damage Prevention), which covers at \$265,594, which funds approximately 2.5 persons, followed by the Clean Energy Development fund that pays for \$175,000 in salaried staff and covers approximately 1.5. A small amount of funds, \$17,680, is also available to pay for a portion of one person to cover administration sales from NYPA power. Net of these costs, the Department covers the approximately remaining 42.5 employees through the gross receipts tax on the gross operating funds of the utilities. Though the staff of the Department has grown approximately 10% over time, from about 45 in 1995 to 49.5 today, as noted earlier in this report, the responsibilities of the Department have substantially expanded.

¹⁴ ITRON, VELCO Long-Term Forecast, 2017, at 43
https://www.vermontspc.com/library/document/download/5996/VELCO_FinalLoadForecast_2017.pdf

While these other funds cover a portion of some salaries of the Department, they do not cover all the costs that are associated with these activities.

Table 11 – Estimated Budget for the Department for FY2019

	Operating Costs	Salaries	Authorized GRT budget	Total All Funds	Gross Receipt Taxes	Authorized Spending
Gross Receipt Tax	1,010,706	4,900,000	5,934,658	5,934,658	\$ 5,297,164	
General Fund	7,775			7,775		7,775
Low-Level Radioactive Waste (21020)	100,000			100,000		100,000
Interdepartmental Transfer Fund (21500)	50,000			50,000		50,000
Billback Fund (21699) (includes EEU)	3,112,628	325,000		3,437,628		3,437,628
Telecom Services For the Deaf (21703)	500,000			500,000		500,000
Clean Energy Devel Fund (21991)	3,789,650	175,000		3,964,650		3,964,650
Federal Funds	917,389	265,594		1,182,983		1,182,983
ARRA Revolving Loan (22041)	1,010,000			1,010,000		1,010,000
Electric Power Sales Fund (50900)	3,500,000	17,680		3,517,680		3,517,680
VTA (21899)	166,498			166,498		166,498
Sub-Total	14,164,646	5,683,274			\$ 5,297,164	13,937,214
Sub-Total GRT			5,934,658			
Grand Total				19,847,920		\$ 19,234,378
Projected Deficit FY 2019					\$ (637,494)	
Accrued Deficit through 6/30/18					(175,671)	
Total Accrued Projected Deficit through FY19					(813,165)	

Billback Authority

Under 30 V.S.A. §§ 21-22, the PUC and the PSD are authorized to assess costs related to regulatory activities to petitioners that are causing these costs. This authority is very helpful in the context of temporarily hiring consultants with particular expertise that is needed in specific cases but has not been used to help fund specific long-term positions within the PSD and PUC as the mechanism does not provide any certainty associated with revenue streams.

Under Section 21, the billback mechanism is utilized on a case-by-case basis, with the PSD or PUC notifying the petitioner that it intends to utilize the mechanism, an estimate of the amount of money to be billed to the petitioner, what the funds would be used for, and the reasonableness of the costs. The petitioner may then contest, through a hearing at the PUC, any of these factors. Consequently, the billback mechanism contemplates prospect of litigation within existing litigation; such action then consumes additional PUC and PSD time.

Energy Efficiency Charge Funds

More recently, the PSD began directing some Energy Efficiency Utility (EEU) evaluation funds toward two full-time, limited service positions. The PSD has been responsible for the evaluation of the EEUs since their creation in 2000; this decision to use evaluation funds for Department positions resulted in lower costs as the PSD was able to bring some of the highly technical evaluation activities in house. A total of 3.3 positions are funded from EEU evaluation funds for the current fiscal year.

U.S. Department of Energy State Energy Program Funds

The Department acts as the State Energy Office for Vermont and coordinates with the Department of Energy (DOE) on activities such as collection of energy-related data and development of efficiency

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codes. The DOE provides grants to assist with these activities. A total of 1.6 positions are funded from DOE SEP funds in the current fiscal year.

Clean Energy Development Fund

The Department houses the Director of the Clean Energy Development Fund. A full-time position is funded from the CEDF in the current fiscal year, as well as some additional staff time.

D. [Current and Historic Funding of the Department and the Commission](#)

The current funding of both the Department and the Commission is no longer adequate to cover the costs of these agencies today and into the future. Of the two agencies, the Department is now experiencing this revenue shortfall pressure acutely. The figures below show the revenues and expenditure levels of both the Department and the Commission over time associated with current GRT levels and the 40/60 split of revenues between the Department and the Commission. Overall, the Department's available GRT funds have increased by about 24 percent in real terms between 2009 and 2019 (from \$4.2 million to \$5.2 million (current projections), but by only 6 percent when adjusted for inflation (in real or constant dollars). The total funds available to the Department excluding CEDF, ARRA, and fuel efficiency were \$9.9 million in 2009 as compared to a budget of \$8.7 for FY2019 as reflected in Table 12.

Table 12 – Public Service Department Spending Authority, Revenues, and Balances (2011-2019)

	Gross Revenue Fund										Projected
	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019		
INCOME											
Cash Balance Brought Forward from Prior Fiscal Year	24,965	1,666,993	2,786,273	2,119,046	2,273,874	1,784,446	1,402,849	621,076	(175,671)	(175,671)	
Adjustment to Carry Forward											
Gross Revenue Tax Receipts	7,347,241	7,990,348	8,149,397	8,476,682	8,667,092	8,855,325	8,380,928	8,668,594	8,828,607	8,828,607	
Reimbursement by:											
Administration of Power		91,064	(87,908)								
Federal Grants											
Rate Case Reimbursement	3,462,700	895,752	217,103	(108,035)				439,350			
Sale of Service											
Miscellaneous Receipts	79,106	265,310	2,516	122,324	1,789	100,670	91,026	264,623			
Low-level Radioactive Waste Compact Fund											
Anticipated Receipts											
Interest Income/Dividends	69	23,231	49	(23,136)							
Total Funds Available	10,914,081	10,932,699	11,067,429	10,586,880	10,942,755	10,740,441	9,874,803	9,993,643	8,652,936	8,652,936	
EXPENDITURES											
Salary/Benefits	3,279,327	3,175,643	3,572,906	3,842,481	4,336,665	4,271,312	4,904,361	4,702,309	4,900,000	4,900,000	
Contracts	2,300,535	1,150,607	152,323	456,696	400,684	517,687	135,589	759,226	130,500	130,500	
Operating	623,527	624,397	712,282	636,360	304,982	625,554	651,762	779,318	840,500	840,500	
Grants	-		328,191	37,417	347,403	264,395	105,381	456,372	40,000	40,000	
Other (Liabilities at Year-End from Prior Year)	49,141		22,765	(50,621)	51,738	1,568	4,263	4,652			
GRT Spending Authority	6,203,388	4,973,850	4,765,702	4,972,954	5,389,734	5,678,947	5,797,092	6,697,224	5,934,658	5,934,658	
Total Expenditures	6,252,529	4,950,647	4,788,467	4,922,333	5,441,473	5,680,515	5,801,356	6,701,876	5,911,000	5,911,000	
Total Transfers (to Commission, General Fund, etc.)	2,994,559	3,195,779	4,159,917	3,390,673	3,716,837	3,657,076	3,452,371	3,467,438	3,531,443	3,531,443	
Ending Balance	1,666,993	2,786,273	2,119,046	2,273,874	1,784,445	1,402,849	621,076	(175,671)	(789,507)	(789,507)	

Table 13 -- Public Utility Commission Spending Authority, Revenues, and Balance (FY2015 – FY2019)

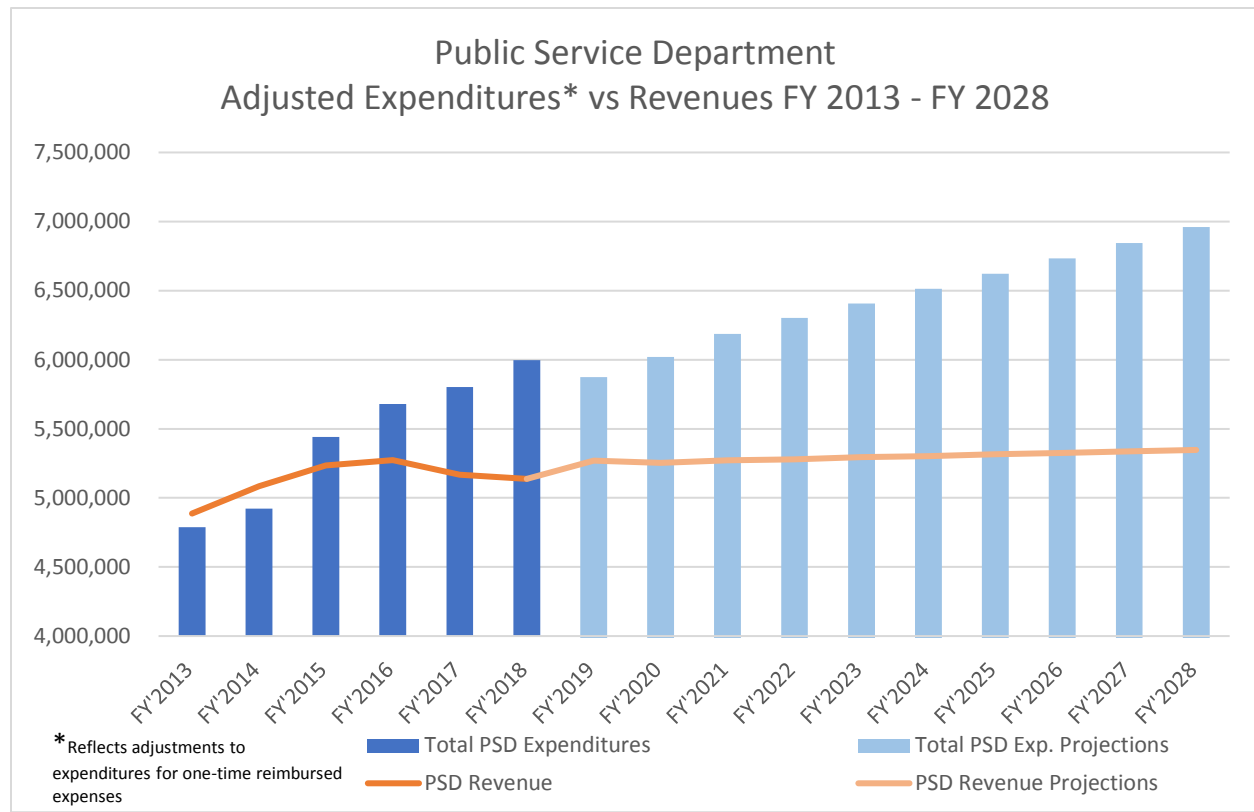
Fiscal Year	FY15	FY16	FY17	FY18	FY19	
Spending Authority	\$3,399,076.00	\$3,480,181.00	\$3,545,000.00	\$3,647,838.00	\$3,700,815.00	
Total Expenditures - Including Billbacks	\$3,130,254.42	\$3,204,301.45	\$3,400,825.59	\$3,647,977.50		
Gross Receipts Tax Revenue	\$3,466,836.65	\$3,522,130.46	\$3,352,371.25	\$3,467,437.72	\$3,531,442.80	*
Billback Revenues	\$33,408.51	\$57,883.45	\$23,031.59	\$80,069.97	\$42,000.00	*
Cash Balance at 6/30	\$4,170,406.27	\$4,573,804.03	\$4,571,936.26	\$4,402,881.38		
GRT + Billback Revenues - Total Expenditures	\$369,990.74	\$375,712.46	-\$25,422.75	-\$100,469.81	-\$127,372.20	*
<i>*Estimated</i>						

E. Summary

The current GRT framework for funding the operations of the Department and the Commission has proved adequate and stable for 45 years during a period of growth in the demand for regulated service and amidst rising costs. With changed circumstances over time, the point is now at hand where the mechanism as it exists is no longer adequate to fund the Department or the Commission in FY2019.

The graph below shows the revenue projections available for the Department into the future. FY2018 reflects a significant increase in one-time expenditures using bridge funding from the Gross Revenue Fund for technical assistance related to major litigation. However, even apart from these one-time expenditures, the revenues tied to the GRT no longer cover the costs of providing the regulatory services required of the Department.

Figure 5 – Department GRT Fund Expenditures and Projections versus GRT Revenues



IV. Review of Other States’ Funding Mechanisms

Part of the Commission and Department’s work in preparing this report was to conduct a review of funding approaches in other jurisdictions. The Department reviewed an older survey performed by the National Association of Regulatory Utility Commissioners (NARUC) in 1996, and statutes from several other states. A review of current state statutes and Vermont’s own experience suggests that the information contained in the NARUC survey is still the most relevant and comprehensive survey of the states. Additionally, a new survey was undertaken of the executive directors of state regulatory agencies in the nation.

These surveys indicate the following:

- 43 of the 50 states and DC (81%) use a general regulatory assessment mechanism similar to the gross receipts tax in Vermont. From the recent survey of executive directors of state regulatory agencies 18 of the 20 (90%) of states or 18 of the 21 regulators (Nebraska has both an electricity

regulator and a Public Service Commission that regulates telecommunications and other sectors) that responded relied on a general regulatory assessment for cost recovery.¹⁵

- Most states rely on a regulatory fee that is analogous to Vermont's Gross Receipts Tax (GRT), but a significant share of the states do not set the fee in statute.
- Only a few states rely on general revenue fund to cover the regulatory apparatus. According to the NARUC survey, only 6 of the 51 state (including DC) utility commissions rely primarily on general fund appropriations. Minnesota reports that it relies on general fund appropriations that are recovered through fees or assessments on the regulated entities. The Nebraska Public Service Commission relies on a combination of fees for specific transactions.
- Almost all of those that responded to the survey question (18 of 20) about the basis for the agency's budget indicate that "estimated commission cost" is the starting point for the establishment of the utility budget. Hawaii indicates that the budget is part of the general legislative budget process and Alabama indicates that the budget is based on the estimated revenues from the fees that have been established in the most recent year.
- The majority of the states reset their general regulatory tax, fee, or assessment levels in the statutes. Only 6 of the 18 states that responded indicated that the fees were reset administratively on an annual basis. That said, many of those that have the fees defined in statute indicate that they frequently or annually adjust the levels of the fees based on the approved budgets. Certain states such as Pennsylvania and Maine adjust the fees annually and have the fees approved by the Commission or senior staff of the Commission. Other states such as Virginia define a range that is appropriate for the fee in statute but reset the fee administratively once a year (August/September) and the Commissioners approve either maintaining the current rates or adjusting the rate for the coming year.
- Almost half of the state's report that they have, or have had, fees associated with specific transactions or investigations.¹⁶
- About 30 of the 50 states and DC report that they have billback authority for the costs of special investigations. However, all states appear to rely primarily on either a general regulatory assessment and/or a general revenue fund appropriation for the majority of funds for the regulator.

Very few of the regulatory commissions in the US derive a major source of their funding from sources other than a general regulatory fee similar to Vermont's gross receipts tax.

¹⁵ One of the Nebraska regulators is covered by a general regulatory assessment and the other is not. The Public Service Commission relies on a general fund appropriation.

¹⁶ NARUC, Yearbook, 1995-1996, Table 15.

V. Analysis of options looking forward

This section discusses the options available to Vermont for closing the future gap between Department and Commission funding requirements and the declining funding expected from the GRT as it is currently formulated. The range of options includes curtailment of services from the Department and Commission, adjustments to the GRT to better account for the financial cost of the agency workloads and supplementing the GRT with other fees or funding sources that correspond directly to the underlying cost burden of the regulatory work and related policy implementation services that the PSD and the PUC provide.

The narrative below focuses on the workload and responsibilities of the Department and the Commission. At this time, the Department is more acutely facing the challenges associated with declining revenues from the gross receipts tax. That said, both the Department and the Commission are facing a challenge of rapidly escalating workloads and staff demands at a time in which current funding is declining. Both agencies are projecting an annual budget deficit over the current fiscal year of approximately \$925,000 (roughly \$800,000 for the Department and \$125,000 for the PUC). Added to this, the Department faced a cumulative shortfall of \$175,000 through 2018.

A. Staffing and Service Delivery

What follows is a summary of the staffing and functions of the Department that are funded through the GRT.

Table 14 – Department Staff by Function and Division

Function	Division	Staff #
Ratemaking, finance, industry reporting	Economics and Finance	5
Energy planning, policy formulation, rate case support	Planning and Energy Resources	5
Clean energy development fund and clean energy finance	Planning and Energy Resources	2
CEDF, energy efficiency budgets, oversight and verification	Planning and Energy Resources	5
Telecommunications and broadband	Telecommunications	4
Engineering, safety, federal reporting	Engineering	5
Legal support for all the Divisions	Public Advocacy	9.5
Consumer protection, web content, communications, call center	Consumer Affairs and Public Information	5
Administration	Administration	5
Department leadership	Commissioner's Office	4
	Total	49.5

As noted above, approximately 7 of the 49.5 members of staff are funded out of another dedicated fund that includes federal program funds, the Clean Energy Development Fund, and the Energy Efficiency

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Fund. The remaining 42.5 individuals are funded through the state's gross receipts tax fund that is the subject of this report.

The functions of the Department are essential to the state and the health and well-being of utility ratepayers and the ambitions of the State in implementing policy objectives for energy, electricity policy, utility cost management, telecommunications and broadband, and ratepayer protections, including those that are administered by the various divisions of the Department. A high-level description of the essential work of the Department is presented in Appendix II, and the further support in relation to the Department's success in keeping down energy costs are detailed in Appendix III.

The energy planning work of the Department includes the work and activities associated with the establishment of the first Comprehensive Energy Plan, but also the work to update and continually adjust the framework in order to advance energy efficiency and renewable energy, and to serve as ratepayer advocate in relation to utility IRPs, Act 174 enhanced energy planning reviews (regional plans and local plans), siting challenges and related project certifications, and to guide the legislature, and implement their aspirations through rulemakings, advocacy and enforcement before the PUC.

The work of the Finance and Economics Division is further advanced through the advocacy of the Public Advocacy Division, as well as the Consumer Affairs and Public Information Division that serves the public and ratepayers through caller assistance and intervention with the utilities.

The Telecommunications Division serves as the primary technical resource for the state around telecommunications and broadband. They are also the ratepayer advocate in all telecommunications matters before the PUC, including the siting of telecommunications facilities. This Division is responsible for updates to the telecommunications plan, the implementation of the universal service fund, and increasingly the development of policy and pathways around expansion of broadband throughout the state.

The Department has been active in managing its costs in response to impending shortfalls in available funds. The Department's cost of salaries is below that of a decade ago.¹⁷ Total disbursements associated with the GRT are only those of a decade ago. The Department is carrying 2 fewer employees than 3 years ago, and has fewer employees covered by the GRT than at any time in recent years.

The workload on the Department in recent years has substantially increased from merchant projects and self-generation, but the Department nonetheless is aiming to reduce its costs by over 4% in the current fiscal year. The Department leadership has concluded that further reductions cannot be achieved without changes to obligations of the Department and would therefore need to be accompanied with some direction from the Legislature on the services that are no longer warranted. Recent experience has been that the responsibilities of the Department have grown both as a matter of industry change (e.g., responding in large part to net-metering, and associated program incentives to encourage merchant generation) and at the direction of the Legislature (e.g., new RES requirements, net-metering requirements, shifting focus of energy efficiency for commercial customers, standard offer programs). These demands have not come with additional funding resources, unlike in the past when

¹⁷ The cost of Personal Services as reported in 2008, was \$4.858 million. In 2018, the cost of salaried employees was \$4.702 million. PSD Biennial Report, July 1, 2006- June 30, 2010, July 2011, available at http://publicservice.vermont.gov/sites/dps/files/documents/Pubs_Plans_Reports/Biennial_Reports/2010%20Biennial%20-%20Publication%20Draft.pdf.

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program funding was planned for and provided when new PSD responsibilities were mandated, such as verifying and otherwise supervising the delivery of energy efficiency services, or the work of the clean energy development fund, as well as federally funded programs related to building efficiency and gas safety.

Other expanded activities the Department has been required to accommodate in only the last two to three years include:

- Act 174 (2016) regional and local energy planning reviews;
- Act 150 (2017) review of the self-managed energy efficiency program (“SMEEP”);
- Act 139 (2018) annual reporting on the state’s compliance with the Comprehensive Energy Plan (including a report on the Sheffield-Highgate export interface (“SHEI”));
- Act 139 requirement to establish 16 new appliance standards through rulemaking procedures;
- Act 174 (2016) wind-project noise monitoring rulemaking (as well on-going wind project noise monitoring for existing wind generation projects);
- Act 42 (2017) appliance standards implementation;
- Act 917 (2018) transportation electrification planning requirements;
- Act 99 (passed in 2014, implemented in 2018) requirements for substantially revising and implementing the programmatic net-metering rule;
- Act 194 (2018) investigating and reporting on demand charges, and modifications to the energy efficiency programs focused on large customers (i.e, self-managed energy efficiency program or “SMEEP”);
- Act 53 (2017) requiring CPG enforcement and responsibility for fining violators for amounts up to \$5,000;
- Merger of the remaining responsibilities of the Vermont Telecommunications Authority into the Department in 2015.

To be clear, these activities all logically fall within the scope of the Department’s fundamental purpose as a regulatory agency. The challenge is that the cumulative effect of these additional regulatory mandates has been to exceed the Department’s financial resources to carry them out while also continuing to perform its established functions and programs of longer tenure, all of which remain vital to fostering a healthy and effective regulatory environment for Vermont’s public utility service sector. Moreover, looking forward, additional regulatory work is anticipated that will further strain the resources of the Department and the Commission, such as establishing a new multi-year planning framework for the investor owned-utilities, increasing the focus on planning for effective integration of distributed energy resources, and updating the energy efficiency programs of utilities. Such regulatory activities are necessary to make costs more affordable for customers and to continue making progress toward achieving statutory and planning goals. Absent initiative from the Department and the PUC on these issues, it is highly unlikely that these activities will occur.

Vermont is a state with aggressive ambitions for energy and utility services looking forward. As is reflected in the Department’s Clean Energy Jobs Report for 2017, the total number of Vermonters engaged in the clean energy industry has grown by 29% since the baseline was collected in 2013. Over 12,000 Vermont workers have full time jobs in this sector and over 19,000 clean energy workers work at

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least part time in the sector.¹⁸ Vermont has one of the cleanest electricity profiles in the US; it has set targets for the sector that are more ambitious than any state in the lower 48. Vermont has consistently ranked among the highest in solar jobs per capita in the nation.¹⁹

Thus, in light of existing responsibilities and future activities that are recurring, the Department does not recommend funding cuts or any further staff reductions.

The Commission's workload has also expanded in recent years without accompanying funding. Most significantly, the Commission's siting responsibilities have increased dramatically over the last six years. (As noted earlier, the growth in the workload of the PUC leads directly to increases in the workload for the Department.) For example, net-metering applications increased from 925 in FY2013 to 3,271 in FY2018. As previously stated, more than half of the Commission's workload now relates to generation projects owned by individuals or companies other than electric utilities. The ability of the Commission and the Department to effectively review and process these applications and ensure that the concerns of affected parties are appropriately examined, weighed and considered is a function of how adequately the Commission and the Department are resourced and staffed.

In fact, in preparing this report, the Commission has advised the Department that the volume and complexity of siting cases before the PUC have increased beyond the Commission's capacity to process them in a timely manner with existing staff. In turn, the Department is experiencing similar strains as well. This situation was exacerbated by the recent change in net-metering rates, which led to the Commission receiving 27 applications for large net-metering projects within 4 weeks. To put this workload in perspective, the PUC received only 22 such applications during calendar year 2017. Because the Commission has already determined that net-metering rates will change again next July, the Commission anticipates receiving another "bubble" of applications for large net-metering projects next June.

Solar energy developers have told the Commission that the current unpredictability in the timing for resolution of the Commission's review of solar siting applications makes it harder for them to do business in Vermont. More predictable timeframes for resolution of siting cases will (1) make it easier for solar energy companies to do business in Vermont, which will contribute to the job growth of this sector; and (2) reduce the cost of participating in Commission proceedings for citizens, thereby making Vermont a more affordable place to live.

The Legislature has also tasked the Commission with implementation and ongoing administration of various programs such as the standard-offer program, the renewable energy standard program, and the energy efficiency utility program.²⁰ Just last fiscal year, the Legislature directed the Commission to, among other items:

- Act 158 - Report on a variety of issues related to electric vehicle charging
- Act 150 - Establish a pilot program that expands the energy savings account program

¹⁸ PSD/CEDF, 2017 Clean Energy Industries Report, available at http://publicservice.vermont.gov/sites/dps/files/documents/Renewable_Energy/CEDF/Reports/VCEI%20Report%202017.pdf

¹⁹ Vermont Digger, February, 28, 2017. <https://vtdigger.org/2017/02/28/vermont-leads-nation-solar-jobs-per-capita/>

²⁰ Unlike the Department, no Commission personnel are funded by the Energy Efficiency Fund.

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- Act 11 (2018 Special Session) – Submit a memorandum on the Commission’s regulatory authority with respect to Vermont’s Enhanced 911 network

Despite these significant workload pressures, in 2017 the Commission’s new electronic filing and case management system, known as ePUC, went live. This system enables parties and members of the public to make filings in cases and access case-related documents and other information online, thereby making it easier for citizens and parties to participate in Commission proceedings and improving the Commission’s transparency. Stakeholders’ response to ePUC has been very positive, with more than 95% of parties in Commission cases electing to use it. ePUC also enabled the Commission to streamline various internal paper processes and improve the efficiency of those processes. However, the Commission’s internal efficiency gains have been more than outweighed by the increase in workload described above.

In recent years, the Department and the Commission have coped with expanding workloads by finding economies and efficiencies to meet the attendant ever-growing demands for regulatory resources. However, there is a limit to how long these agencies can expect to perform well without an infusion of additional funding for their fundamental operations. That said, even if new funding were to be provided, the Department views cost-containment as an integral component of a robust and sustainable pathway forward in managing its operations. Therefore, the Department remains committed to managing its costs carefully and thoughtfully balancing cost-containment measures with performing statutory obligations and services that are essential to advocating for and promoting the public good.

B. Funding Options

Any funding solution will need to provide a stable funding source. The regulatory responsibilities and substantive matters assigned to the regulatory jurisdiction of the PUC and PSD are complex and require specialized knowledge; consequently, it is important that regulators be able to retain staff to promote continuity in institutional knowledge and experience in administering regulatory processes, including litigation before the PUC. In terms of alternatives to the gross receipts tax, there are other potential funding options. Such alternatives include licensing fees, general revenue funding, and specific activity fees (e.g., certification and siting reviews).

One option would be to rely on general fund disbursements. Only a handful of states appear to rely on this mechanism. The challenges include the risk of destabilizing the public utility sector by introducing uncertainty as to regulatory continuity. This is likely to arise if Department and Commission budgets are known to regularly be at risk of diminished funding due to competing general fund considerations and the political process that attends budget adoption. Moreover, this option would pose additional strains on the State General Fund.

A second option would be to impose fees for specific services or regulatory activities, such as siting and certification. The owners/developers/operators of merchant projects who at this time are not subject to the GRT could be required to pay a flat fee upon filing. Thereafter, if it becomes apparent that the review and processing of the petition will require significant amounts of additional regulatory resources, the existing billback mechanism could be used for the costs associated with specialists and outside experts. Preliminary analysis suggests that these would be material and appropriate measures to take in resolving the funding challenges at hand.

A third option would be to exercise the existing billback authority more frequently and to otherwise clarify through legislative action that this authority can be used more comprehensively, following a more streamlined process that minimizes the risk of secondary litigation. Again, only a handful of states rely primarily on the billback mechanism, although roughly half the states utilize billback authority to assist with regulatory activities. Billback authority does not provide a stable funding source to fund full-time employees and would likely increase regulatory costs if the PUC and PSD enlisted the services of private-sector consultants and attorneys whose compensation rates far exceed what their public-sector counterparts are paid. Also, the use of the billback authority invites the risk of secondary litigation within a litigation, which in turn draws energy and focus away from the actual substantive point of the regulatory proceeding. The best use of the billback authority has proved to be for uncommon matters such as large cases involving complex litigation or policy investigations where economic modeling specialists are needed for forecasting and the like. The Department recommends that the agency make more frequent and expanded use of its billback authority, which would include billing for the use of staff resources (both PSD attorneys and PSD subject-matter experts) to manage the litigation and outside experts for larger merchant, independent power cases that involve higher levels of litigation. Even so, greater use of the billback authority would only solve part of the funding shortfall problem.

Fixed fees may be appropriate if there is an ongoing workload associated with regulation. For instance, matters involving generators with potential performance obligations that require follow-up from the regulator as in the case of wind-generation sound monitoring or decommissioning for small-scale renewable generation facilities. Absent a regular fee of some sort, the balance of compliance requirements perhaps could be addressed through a revised penalty scheme (and associated billbacks) that functions both as a deterrent and ensures that costs of enforcement now borne by ratepayers in fact are imposed on those who have necessitated the consumption of enforcement resources.

C. Allocation of the gross revenue funds between the Department and the Commission

Subsection (c) of 30 VSA §22 establishes the division of gross revenue fund between the Department and the Commission as follows:

Of the revenue deposited into the special fund for the maintenance of engineering and accounting forces, 40 percent shall be allocated to the Public Utility Commission and 60 percent shall be allocated to the Department of Public Service.

Act 11 asks whether this amount is still appropriate.

As noted above, the GRT funding mechanism and the allocation ratio of the related tax receipts between the Department and the Commission have been in place since these two agencies were separated in 1981. In the ensuing 37 years, GRT rates have remained essentially unchanged. As noted above in this report, the challenge that exists today is one of revenue adequacy for both the Department and the Commission. The net cumulative difference between the current balance between the two agencies is \$4.578 million at the end of FY2018. The difference is material for a given year, but comparatively small relative to the \$122.5 million that has been collected through the fund since 2002.

D. Summary

Neither agency appears to be adequately funded on a going-forward basis. To achieve sustainable funding, the Department recommends an action plan that entails several measures: (1) a one-time allocation from the Commission's existing \$4.4 million in accumulated carry-over funds to offset the Department's transitional shortfall (of \$127,000 from FY2018 plus anticipated accumulated deficiencies in FY2019) (2) revising the statutory funding allocation ratio between the Department and the Commission from the existing 60/40 split to a 65/35 split; (3) instituting a cost-based regulatory activity fee for the Department to charge (revenues to be shared with the PUC per the 65/35 split) that is on par with the fee presently charged by ANR for its participation in PUC proceedings; (4) increased and expanded use by the Department of its billback authority. In addition to these measures, the Department will also endeavor to find further cost-efficiencies in its operations.

With respect to the recommendation to institute a cost-based regulatory activity fee, this measure is especially important to ensure over the long term that both agencies are well-funded relative to their regulatory responsibilities. The Department recommends that such a fee be set and reset on a frequent basis (e.g., biennially), that the fee adjustments be accomplished administratively by the Commission, and that the Legislature make such statutory revisions as are necessary to authorize the Commission to perform this fee-setting function.

E. Questions posed to the Department

The following questions and requests were asked of the Department in preparing the report. Each are followed with a short response and the area of the report that addresses the request.

(1) With respect to the gross operating revenue tax, the Commissioner shall consider:

(A) the total amount collected by each category of companies described under 30 V.S.A. § 22;

III.A. addressed the total amount of revenues that are collected by the sectors and companies described in 30 V.S.A. § 22.

(B) how that amount correlates with the regulatory activities of the Commission and the Department with respect to those companies;

Section II.A. provided an analysis of the workload activities of the Department and the Commission in relation to the gross revenue sources addressed in Section III.

(C) whether there is cross-subsidization of regulatory activities and, if so, to what extent;

Section II.A. addressed the question of whether there is a reasonable match between the level of regulatory services required of different sectors in relation to the funds collected from the sector.

(D) the gross operating revenue trends of companies subject to the tax and the factors influencing those trends;

Section III.B. addressed concerns associated with emerging trends for the industries regulated by the Department and the Commission and the implications for the sustainability of those sources.

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(E) the projected fund balance in the General Gross Receipts Tax Fund;

Section III. addressed the projected fund balances from the GRT fund and the implications for the funding adequacy of both the Commission and the Department.

(F) the allocation of funds between the Public Utility Commission and the Department of Public Service and whether the 40/60 percentage allocation is appropriate;

Section V.C. addresses the question of the relative allocation of funds from the GRT that are allocated between the Department and the Commission.

(G) whether adjustments should be made to the tax rates; and

Section V.C. and Section VI. address options and potential recommendations for ensuring revenue adequacy for both the Commission and the Department.

(H) any other matters deemed relevant by the Commissioner.

See the discussion below under Subsection (2)(C).

(2) With respect to the assessments imposed under 30 V.S.A. §§ 20 and 21 (the billback provisions):

(A) whether there are persons involved in particular proceedings who are not subject to the assessment for State expenses incurred as a result of those proceedings;

As discussed extensively throughout this report, and especially in Section II and Section III, there has emerged a new class of providers of utility services that are either not assessed or not subject to assessment for the State regulatory services that are required.

(B) the amount of expenses incurred for which there is no applicable billback provision, resulting in expenses for additional personnel being reimbursed from the General Gross Receipts Tax Fund; and

As noted above in Section II.A., the Department and the Commission will billback the specialized expertise that is associated with merchant project regulatory reviews, such as those associated with the sale of the Vermont Yankee Nuclear Power Facility, however, the costs of the state's activities associated with the ongoing and day-to-day oversight of the plant have necessitated a full-time nuclear engineer and other staff resources that are not directly covered through the GRT fund. Similar concerns relate to the role of the Department in managing at least four of the ten funds and its work in relation to broadband communications.

(C) any other matters deemed relevant by the Commissioner.

Throughout this report, the Department has attempted to address a wide range of issues that the Commissioner believes should be considered by the Legislature. Of particular concern is the potential for compromising regulatory services and the resulting adverse impact on the sectors, enterprises, and ambitions of the state for clean energy services as described above in Section II.A and the communities that are impacted by the siting of both large and small generation projects, and the siting of utility and merchant transmission lines. As reflected in Section V.C. the Commissioner believes that additional flexibility, such as cost-based fees, will be required to effectively ensure revenue adequacy in an era of flat to declining gross operating revenues that are more likely for the future.

VI. Recommendations

Based on the Department's review of recent history and other jurisdictions, this report recommends that Vermont consider the following options, whether in isolation or as a package of selected pieces:

- Address the one-time stop-gap funding for the Department to provide revenue adequacy for FY2019. The Department recommends a one-time reallocation from the PUC's \$4.4 million of accumulated carry-over funds to the Department to retire the PSD's accumulated deficits in collections for FY 2018 and FY 2019.
- Stabilize the long-term funding and resource requirements of the Department and the Commission by revising the GRT mechanism. The GRT mechanism provides a relatively stable foundation for recovering the costs of regulatory services. However, the GRT allocation ratio of 60% -PSD/40 % -PUC that exist in statute no longer ensures an adequate division of funding between the two agencies. The split should be revised to 65%-PSD/35%-PUC.
- Supplement the GRT mechanism by instituting an administratively determined cost-based fee that would apply for the various actions and activities of both agencies. Divide the fee revenues between the PSD and the PUC using the 65%/35% split and provide for the fee schedule to be established administratively by the Commission.
- Supplement the Department's existing funding with more frequent and expanded use of the billback authority, especially with respect to matters involving merchant generation certifications and project siting efforts that have unusually high litigation costs in terms of associated PSD staff time (both PSD attorneys and PSD staff subject-matter experts) on litigation and supplemental experts required.

Appendix I – Act 11 of 2018 (Section E.233.1). Sustainable Funding for the Public Utility Commission and the Department of Public Service; Study

The Commissioner of Public Service, in consultation with the Public Utility Commission, shall study and make findings and recommendations regarding the gross operating revenue tax on public utilities imposed under 30 V.S.A. § 22, as well as the assessments imposed under 30 V.S.A. §§ 20 and 21. The purpose of the study is to determine whether the existing statutory mechanisms for financing utility regulation in Vermont are appropriate and, if not, how they might be improved to achieve a sustainable general gross receipts tax fund position and to better serve the public interest.

(1) With respect to the gross operating revenue tax, the Commissioner shall consider:

(A) the total amount collected by each category of companies described under 30 V.S.A. § 22;

(B) how that amount correlates with the regulatory activities of the Commission and the Department with respect to those companies;

(C) whether there is cross-subsidization of regulatory activities and, if so, to what extent;

(D) the gross operating revenue trends of companies subject to the tax and the factors influencing those trends;

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(E) the projected fund balance in the General Gross Receipts Tax Fund;

(F) the allocation of funds between the Public Utility Commission and the Department of Public Service and whether the 40/60 percentage allocation is appropriate;

(G) whether adjustments should be made to the tax rates; and

(H) any other matters deemed relevant by the Commissioner.

(2) With respect to the assessments imposed under 30 V.S.A. §§ 20 and 21 (the bill-back provisions):

(A) whether there are persons involved in particular proceedings who are not subject to the assessment for State expenses incurred as a result of those proceedings;

(B) the amount of expenses incurred for which there is no applicable bill-back provision, resulting in expenses for additional personnel being reimbursed from the General Gross Receipts Tax Fund; and

(C) any other matters deemed relevant by the Commissioner.

Appendix II – Essential Roles and functions of the PUC and PSD

Economic regulation (setting rates and service quality)

Economic regulation refers to the Department's core responsibilities as ratepayer advocate, and the PUC's responsibilities as the adjudicator, to review the adequacy of utility revenues in relation to its costs. Vermont's largest utilities are its energy utilities, including Green Mountain Power (GMP) and Vermont Gas Systems (VGS). In addition to the above, the Department is also responsible for review of revenue requirements for the other 16 electric utilities (the municipal and cooperative systems) and for the privately-owned water and wastewater systems in the state. The Department and the Commission are also responsible for determination of the required revenues and scope of services and targets for the energy efficiency utilities.

Consumer protection and advocacy (representing the public in all utility siting and review)

The Department is responsible for addressing ratepayer complaints from consumers. Each year the Consumer Affairs and Public Information (CAPI) unit handles thousands of complaints from customers and serves as a liaison with utilities to resolve complaints. The Department, through its CAPI unit also ensures that the concerns of vulnerable portions of the customer base are represented in matters that affect their interests in rate cases, matters of rate design, rulemakings and policy proceedings before the Commission.

Comprehensive energy planning

The Public Service Department is responsible for long-range electricity and energy planning. The Department is responsible for updates every six years. In 2016, the Department completed a major update to the plan and established the long-term targets for renewable energy and GHG reduction that are now well established in policy through executive order of the Governor. Planning efforts include major efforts to revisit the affordability of energy services on a regional level under the Governor's leadership in 2018 as part of Conference of Northeastern Governor's, and the Department's

participation in the Climate Action Commission that resulted in 53 recommendations for advancing the state's ambitions for GHG reduction consistent with Vermont law, and national and international commitments of the state in its partnership agreements.

Utility resource planning efforts including integrated resource planning and distributed resource planning

Vermont statutes require that Vermont's energy utilities establish long-range plans that include consideration of alternatives to major investments in power plants and major contracts that could be achieved more affordably through investments in alternatives, like energy efficiency. The plans are intended to identify the least-cost pathway for meeting the requirements of energy utility customers for service. The Department and the Commission are responsible for the periodic analysis and potential approval of these plans that are intended to be presented on a three-year cycle.

Energy Efficiency implementation and oversight (including energy components of appliance and building codes, value of energy efficiency, energy efficiency targets)

The Department and the Commission are responsible for the oversight of Vermont's three energy efficiency utilities (EEUs), the largest of which is a fully independent Efficiency Vermont, that delivers services to the state through the Vermont Energy Investment Corporation. The Department is responsible for technical analysis that is presented to the Commission for review and determinations.

Nuclear power and safety

Vermont Yankee has been under the supervision of the Department since it was originally licensed in 1971. The VY facility closed in December of 2014 but continues to impose significant demands on the resources of the Department that includes a nuclear engineer who is dedicated to providing oversight of the project. The VY facility also requires the ongoing engagement of the Public Advocacy division in efforts to resolve matters of the safe storage of fuel, the transfer of ownership, and the ultimate decommissioning and disposal of high-level waste from the facility.

Telecommunications and broadband planning (10-year telecommunications plan)

The Department is also responsible for telecommunications planning efforts in the state. The Department last prepared a telecommunications plan in 2014 and is overdue for a major update. A major part of the Department's work is increasingly focused on the need for more widespread broadband services.

Energy Policy Implementation (standard offer program, oversight of the RES, reporting on pathways to meeting targets for GHG and renewables)

The Department and the Commission are responsible for energy policy initiatives related to GHG reduction and renewables. Among the legislative requirements are those associated with net-metering, renewable standard offer programs, and oversight of the renewable energy standards.

Energy Policy includes the efforts of the Department's planning group to look at and anticipate the challenges and opportunities of the future. At present these include efforts that look at electrification, grid modernization, and the integration of distributed renewable generation resources.

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Siting and Compliance

The Commission is responsible for reviewing applications for electric generation and transmission facilities, natural gas transmission facilities, and wireless telecommunications towers; the Department advocates in those proceedings. Quality of independence is always a priority for the regulator that extends to the public advocate and funding. The Department is represented by a staff of 9.5 attorneys that represent ratepayer interests in a broad array of matters.

Universal Service Fund and Distribution of Funds

The Department is also responsible for an array of other issues related to programs and activities associated with the former Vermont Telecommunications Authority. The Department's responsibilities include oversight and direction of funding pursuant to the criteria established under the Vermont Universal Service Fund as established in 30 VSA Chapter 88.

[Appendix III - Direct Ratepayer Benefits](#)

Table III.1 provides an overview of the Department's impact on rate requests from regulated utilities during the period 7/1/2010 through 6/30/2016. These savings amounted to over \$55 million during this period.

Table 1. Department of Public Service Impact on Utility Rate Requests

Green Mountain Power		Original Request		After PSD Review	Savings
Rate Year	Case	Amount (\$)	%	%	
2013	Alt Reg Base Rate Filing	\$9,864,000	1.67%	0.40%	\$ 7,501,365
2014	Alt Reg Base Rate Filing	\$20,922,000	3.81%	2.46%	\$ 7,413,307
2015	Traditional Rate Filing	(\$155,000)	-0.03%	-1.46%	\$ 7,388,333
2016	Alt Reg Base Rate Filing	\$7,021,000	1.26%	0.73%	\$ 2,953,278
2017	Alt Reg Base Rate Filing	\$19,559,000	3.35%	0.93%	\$ 14,129,188
Total reduction from PSD review					\$ 39,385,472
Vermont Gas		Original Request		After PSD Review	Savings
Rate Year	Case	Amount (\$)	%	%	
2014	Alt Reg Base Rate Filing	(\$4,900,000)	-5.86%	-5.86%	\$ -
2015	Alt Reg Base Rate Filing	\$2,007,875	2.34%	-1.31%	\$ 3,131,942
2016	Alt Reg Base Rate Filing	(\$755,518)	-0.90%	-3.00%	\$ 1,762,875
2017	Alt Reg Base Rate Filing* *excludes SERF withdrawal	\$11,204,397	10.13%	1.03%	\$ 10,065,154
Total reduction from PSD review					\$ 14,959,971
Muni's		Original Request		After PSD Review	Savings
Rate Year	Case	Amount (\$)	%	%	
2014	WEC Rate increase	\$ 501,787	3.78%	3.78%	\$ -
2017	WEC Rate increase	\$ 877,909	6.52%	5.95%	\$ 76,750
2013	Swanton Rate Increase	\$ 702,995	10.69%	1.00%	\$ 637,233
2014	Swanton Rate Increase	\$ 490,499	7.42%	6.07%	\$ 89,242
2016	Swanton Rate Increase	\$ 325,607	4.52%	2.05%	\$ 177,931
2015	Barton Rate Increase	\$ 505,252	20.81%	16.17%	\$ 112,656
2013	Stowe Rate Increase	\$ -	0.00%	-3.50%	\$ 397,648
2014	VEC Rate Increase	\$ 2,093,464	2.93%	2.93%	\$ -
Total Reduction from PSD review					\$ 1,491,460

Appendix IV -- DPS Expenditures

The Department's budget is comprised of numerous funds in addition to the gross receipts tax fund. Included among them are the following:

Fund Definitions

21698 – Gross Revenue Fund

This funding source is from the collection of gross revenue from utilities doing business in the State of Vermont. Reports are filed by these entities each April. Those reports and subsequent revenue collections fund activities in the fiscal year the collection happens in. (For example, the 2016 filings paid in April of 2016 provide the revenue for the Department's activities July 1, 2015 – June 30, 2016 or Fiscal Year 2016.) This fund is the main operating fund for the Department. The majority of staff salaries are paid from here. This fund shoulders the cost of space rental for the Department as well as all general operating expenditures.

21699- Billback and EEU

This fund is used to pay for all expenditures related to docket work that will be billed back to various entities. This fund also supports any expenditures paid by the Department that will in turn be billed back to the EEU.

21991 – Clean Energy Development Fund

This fund is used by CEDF to increase the development and deployment of cost-effective and environmentally sustainable electric power resources, primarily with respect to renewable energy resource and the use of Combined Heat and Power technologies.

21020 – Low-level Radioactive Waste Compact

Funded by a bill-back pursuant to 10 V.S.A. Section 1067, to the generators of low-level radioactive waste in the State. This fund is used to support the PSD's oversight and involvement in the Texas Compact Commission.

50900 – Purchase of Electric Power

This fund supports the administrative costs to the PSD for the purchase of wholesale power that is sold to utilities. These costs are billed back to the utilities pursuant to 20 V.S.A. Section 21.1.

22005 – Federal Funds

The programs supported by these federal funds are the State Energy Program, fuel price monitoring, Dig Safe® and the gas pipeline safety program.

22041 – ARRA Revolving Fund

The source of funding is the repayment of ARRA loans issued FY2010-FY2013. As principal is received, the monies will be directed to grants as well as a reserve for any default loans.

21500 – Interunit Transfers Fund

This fund is used to facilitate payments and/or receipt of payments from other State Agencies related to shared activities and agreements covering services of interest to the Department and its sister agencies.

Table IV- 1 provides an overview of the Department's expenditures by funding source for fiscal years 2011 through 2016.

Gross Receipts Fund - 21698								
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Salary and Benefits	3,279,327	3,175,643	3,572,906	3,842,481	4,336,665	4,271,312	4,904,361	4,702,309
Contractual Services	2,302,941	1,150,607	170,297	407,010	450,169	517,766	135,589	759,386 *
Grants			328,191	36,917	347,403	264,395	105,381	456,372
Operating Expenditures	670,242	624,397	716,875	635,904	797,541	670,285	651,762	779,158 *
Total	6,252,510	4,950,647	4,788,269	4,922,312	5,931,778	5,723,758	5,797,092	6,697,224
* includes certain one-time reimbursed expenses for 2018								
Low-Level Radioactive Waste Fund - 21020								
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Salary and Benefits							-	-
Contractual Services	62,624	79,606	84,873	51,558	54,104	53,874	71,003	49,623
Grants							-	
Operating Expenditures	36,268	11,781	3,510	8,285	1,430	12,255	7,419	8,867
Total	98,892	91,387	88,383	59,843	55,534	66,129	78,422	58,490
Billback and EEU - 21699								
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Salary and Benefits			139786	164831	181023	167943	247,805	288,160
Contractual Services			5350411	4911214	519688	682034	1,613,699	3,880,092
Operating Expenditures			10619	11689	-555	30882	24,627	90,577
Total			5,500,816	5,087,734	700,156	880,859	1,886,130	4,258,829
Telecom Services for the Deaf - 21703								
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Salary and Benefits					9777	5087	-	-
Contractual Services	414756	439765	331086	408786	235335	181217	205,252	250,484
Grants						31,383		
Operating Expenditures	772	485	578	651	5284	13418	1,224	2,486
Total	415,528	440,250	331,664	409,437	250,396	231,105	206,476	252,970

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Clean Energy Development Fund								
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Salary and Benefits	136,416	139,424	73,538	79,363	144,623	119,157	126,178	176,920
Contractual Services	355,856	167,210	2,587,479	2,867,814	313,141	180,612	148,133	108,130
Grants	2,742,890	3,838,115	440,999	624,515	584,820	413,810	499,945	1,040,644
Small Scale Ren. Incentives				1,159,004	1,897,951	392,765		
Operating Expenditures	30,637	2,933	3,440	2,022	11,497	977	540,607	633,732
Total	3,265,799	4,147,682	3,105,456	4,732,718	2,952,032	1,107,321	1,314,862	1,959,427
Federal Funds - 22005								
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Salary and Benefits	218,321	337,809	217,192	186,926	194,031	360,987	-	-
Contractual Services	59,437	81,801	457,407	(67,597)	331,667	789,482	15,131	13,858
Grants	438,424	311,558	401,504	514,377	23,793	355,164	243,259	134,101
Operating Expenditures	32,597	34,546	23,805	32,381	47,691	43,805		
Total	748,779	765,714	1,099,908	666,087	597,182	1,549,438	258,390	147,959
ARRA Funds - 22040 & 22041								
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Salary and Benefits	470,533	489,270	124,841	81,940	12,661		9,215	14,310
Contractual Services	3,420,333	5,866,756	1,734,666	101,199	86,606	17,781	1,098	45
Grants	8,033,683	10,711,417	1,317,531		(200)	317,106		
Operating Expenditures	21,794	45,099	31,104	47,027	2,991		2,802,595	3,125,016
Total	11,946,343	17,112,542	3,208,142	230,166	102,058	334,887	2,812,908	3,139,371
Purchase of Public Power - 50900								
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY'2017	FY'2018
Salary and Benefits				5,919	7,822	9,140	9,215	14,310
Contractual Services							1,098	45
Purchase of Public Power				4,435,537	3,163,572	2,877,338	2,802,595	3,125,016
Operating Expenditures								
Total	-	-	-	4,441,456	3,171,394	2,886,478	2,812,908	3,139,371
Other								
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
Salary and Benefits	12,048	19,715					309,977	370,961
Contractual Services	835,382	1,661,991				5,876	424,637	(7,149)
Grants				35,000	48,161	13,793	748,877	641,543
Operating Expenditures	2,501,816	2,173,359	133,513	64,620		28,336	102,636	158,123
Total	3,349,246	3,855,065	133,513	99,620	48,161	48,005	1,586,128	1,163,478