



SOUTH CAROLINA REVENUE AND FISCAL AFFAIRS OFFICE
STATEMENT OF ESTIMATED FISCAL IMPACT
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Bill Number: H. 4421 Amended by House Judiciary on March 7, 2018
Author: J.E. Smith
Subject: SC Electric Consumer Bill of Rights
Requestor: House Judiciary
RFA Analyst(s): Wren and Jolliff
Impact Date: April 3, 2018 – Updated to Include Fiscal Impact as Introduced

Estimate of Fiscal Impact

	FY 2018-19	FY 2019-20
State Expenditure		
General Fund	\$0	\$0
Other and Federal	\$712,000	\$0
Full-Time Equivalent Position(s)	7.00	0.00
State Revenue		
General Fund	(\$484,000)	\$0
Other and Federal	\$0	\$0
Local Expenditure	\$0	\$0
Local Revenue	See Below	\$0

Fiscal Impact Summary

The amended bill will increase recurring Other Funds expenses of the Office of Regulatory Staff (ORS) by \$540,000 in FY 2018-19 for 5 FTEs, computers, phones, travel, training, and the assistance of an expert to aid in the implementation of this bill. The bill will increase recurring Other Funds expenses of the Public Service Commission (PSC) in FY 2018-19 by \$153,000 for 2 FTEs, IT equipment rentals, office supplies, training, and professional development. Nonrecurring Other Funds expenses of PSC are expected to total \$19,000 in FY 2018-19 for IT equipment purchases and office furniture. The bill will have no expenditure impact on the Department of Revenue or the Public Service Authority.

The amended bill will reduce General Fund income tax revenue by \$484,000 beginning in FY 2018-19 through FY 2023-24. Any carryforward of unused credits may extend beyond FY 2023-24.

We do not anticipate that this bill as amended will have a significant impact on local property tax revenue, as we have not identified any counties taxing residential renewable energy property installations.

This impact statement has been updated to include the fiscal impact of the bill as introduced, which is pending contingent upon additional information.

Explanation of Fiscal Impact

Updated to Include Fiscal Impact as Introduced Amended by House Judiciary on March 7, 2018

State Expenditure

The amended bill requires ORS to investigate and recommend to PSC revised ratemaking methodologies, cost allocations, and rate designs for all retail customers by December 31, 2019. The recommendations should include a proposed timeline for implementation, including a pilot period of at least two years to study the impact of new rate designs on customer behaviors and on customer satisfaction. PSC must issue an order adopting, modifying, or rejecting the recommendations by ORS no later than December 31, 2022. The bill identifies rate design goals and defines relevant terms.

Each electrical utility must adopt the interconnection standards approved by PSC for interconnection of electric generation facilities and on-site distributed energy resources to the distribution grid. Within 180 calendar days of the enactment of this bill, PSC must modify the interconnection standards to provide an expedited procedure for interconnection of on-site distributed energy resources. No more than thirty days after the enactment of this bill, each electrical utility must file a net metering tariff with PSC and begin offering net metering service to customers with on-site distributed energy resources. Within thirty days of the enactment of this bill, PSC must issue a notice to request comments and proposals for a standardized net metering agreement from all interested persons. Then, within 150 days of the enactment of the bill, PSC must issue an order approving a standardized net metering agreement.

Each electrical utility must develop and implement an incentive program to encourage the installation of an on-site solar energy storage facility to serve the critical loads of the primary residence of a first responder and designated emergency shelters. PSC must allow an electrical utility to recover the prudently incurred costs of implementing and administering the incentive program. Unless otherwise stated, this bill takes effect upon approval by the Governor.

The bill also creates an income tax credit for solar property installations similar to the tax credit in Section 12-6-3770 that was repealed on December 31, 2017. Section 8 of the bill creates a property tax exemption for renewable energy resource property. Both tax provisions will be administered by the Department of Revenue.

Department of Revenue (DOR). Based upon previous responses by DOR regarding similar legislation, this bill is not expected to impact the agency's expenditures. We anticipate that the agency can administer both the income tax credit and the property tax exemption with existing staff and resources.

Office of Regulatory Staff (ORS). ORS indicates that this bill will increase recurring Other Funds expenses by approximately \$540,000 in FY 2018-19. Of this amount, \$427,000 is for 5 FTEs, including a utilities rates manager, a utilities rates analyst, an attorney, a paralegal, and a consumer educator. Operating expenses are expected to total \$113,000 for computers, phones, travel, and training for the 5 FTEs and to retain an expert to aid in the implementation of this bill.

Public Service Commission (PSC). PSC indicates that this bill will increase recurring Other Funds expenses by approximately \$153,000 in FY 2018-19. Of this amount, \$135,000 is for 2 FTEs, which includes an economist and a rate analyst. Recurring operating expenses are expected to total \$18,000 for IT equipment rentals, office supplies, training, and professional development. Nonrecurring Other Funds expenses are expected to total \$19,000 for IT equipment purchases and office furniture.

Public Service Authority (PSA). PSA indicates that the net metering provisions of the bill do not apply to their operations. Further, the agency does not expect that the rate structure provisions or modifications to the existing leasing code sections will have an impact on their operations. Therefore, the bill will have no expenditure impact on the General Fund, Other Funds, or Federal Funds for PSA.

State Revenue

The amended bill adds Section 12-6-3770(A). This section is similar to Section 12-6-3770, which was repealed on December 31, 2017, pursuant to the provisions of Act 134 of 2016. The section allows a taxpayer who constructs, purchases, or leases solar energy property to claim an income tax credit equal to 25 percent of the cost, including the cost of installation of the property. The credit is limited to property that is located on the Environmental Protection Agency's National Priority List, National Priority List of Equivalent Sites, on a list of related removal actions, as certified by the Department of Health and Environmental Control, or on property owned by the Pinewood Site Custodial Trust. The credit is earned in the year in which the solar energy property is placed in service but must be taken in five equal annual installments. Unused credits may be carried forward for five taxable years. A credit is not allowed to the extent the cost of the solar energy property is provided by public funds. Public funds does not include federal grants or tax credits.

This section of the bill takes effect in income tax years beginning after 2017 and must apply and terminate in the same manner as provided in Section 1.B of Act 134 of 2016. Section 1.B. of Act 134 of 2016 applied for two tax years and was then repealed on December 31, 2017. Under this interpretation, the tax credit may be earned in 2018 and 2019, but any unused credits will be carried forward.

Based upon tax year 2016 income tax returns from the Department of Revenue, South Carolina taxpayers reported approximately \$1,400,000 in income tax credits in tax year 2016 pursuant to Section 12-6-3770. However, taxpayers only had sufficient tax liability to use \$484,000. The remainder will be carried forward. We assume a similar amount of credits will be earned in future years. However, since the new provisions are similar but not identical, the tax credits may be affected to the extent that eliminating the definitions or expanding the list of applicable sites broadens the ability for taxpayers to claim the credit. Tax credits earned in tax years 2018 and 2019 may be taken in five equal annual installments and carried forward for five years from the year the credit may be taken. Therefore, we expect General Fund income tax revenue will be reduced by \$484,000 beginning in FY 2018-19 through FY 2023-24. Any carryforward of unused credits may extend beyond FY 2023-24.

Local Expenditure

N/A

Local Revenue

The bill as amended creates a property tax exemption for renewable energy resource property with a nameplate capacity of no greater than 20 kW. The exemption is applicable for property tax years beginning after 2017 and must apply and terminate in the same manner as provided in Section 1.B. of Act 134 of 2016. Section 1.B. of Act 134 of 2016 applied for two tax years and was then repealed on December 31, 2017. Based upon this interpretation, we expect that the property tax exemption will be applicable for two tax years beginning in tax year 2018.

The August 2017 report *2016 End of Year South Carolina PV Soft Cost and Workforce Development* prepared by the Savannah River National Laboratory (SRNL) surveyed solar industry professional installers who serve the South Carolina market. Figure 3-2 of the SRNL report includes the average installation sizes by sector for South Carolina specific installations by the surveyed professionals. Based upon this information, the average residential installation capacity was 9 kW-DC, commercial installations averaged 377 kW-DC, and utility installations are significantly larger at 14.8 MW-DC. Therefore, we would expect that since the exemption is restricted to properties with a capacity of no greater than 20 kW, it is likely to only apply to residential installations.

For residential installations, the energy resource property is not taxed separately from the owner-occupied home in most cases. We have determined from discussions with assessors that residential installations owned by a homeowner and installed on a residence are not taxed separately and cannot feasibly be valued separately from the residence. As such, in order for residential property to qualify for the exemption, the renewable energy property would have to be under a lease agreement or other situation in which a business retains ownership or in a unique situation in which the property was separate from the residence. Further, we have not identified any counties taxing residential renewable energy property in researching similar legislation. Therefore, we do not anticipate that this exemption will have a significant impact on local property taxes.

However, the following analysis provides additional information regarding the potential renewable energy property exempted by this bill:

Based upon the most recent data available from the SC Energy Office through FY 2016-17, approximately 9,900 solar installations with a capacity of 20 kW or less are installed currently with a total capacity of 83,668 kW-AC. This equates to an average of 8.45 kW-AC per installation. Compared to an estimated 2753 residential installations through FY 2015-16, this equates to approximately 7,147 new installations in the fiscal year. If this growth continues for another six months through the end of 2017, solar installations with a capacity of 20 kW or less would increase to approximately 13,473 installations with a capacity of 113,850 kW-AC through 2017.

This information is consistent with nationwide trends. According to U.S. Energy Information Administration (EIA) capacity growth data, U.S. residential solar installations increased at a rate

of 43 percent from 2015 to 2016 and are expected to continue growing. Projected residential installation capacity growth from 2016 to 2017 is approximately 27 percent.

The value of renewable energy resource property depends on the energy generation capacity of the property. According to the SNRL report, the average cost for hardware including panels and associated equipment, not installation costs, was \$1.74/watt in the last two quarters of 2016. The Energy Office noted that this report provides the best SC specific data available at this time. Although it measures capacity in DC, whereas installed capacity numbers are measured in AC, the difference is small and depends on the efficiency of the inverter.

Multiplying the estimated \$1.74/watt times an average capacity of 8.45 kW yields an estimate value of approximately \$14,700 per system. For the total estimated 13,473 installations total value is approximately \$198,053,000.

As stated previously, this exemption would only reduce local revenue to the extent that the owner is paying property taxes on the equipment. Businesses that pay property taxes in South Carolina potentially could claim the exemption for residential installations that are leased. Depending upon the structure of the lease and accounting practices, we expect that the majority of the leasing companies are not paying business personal property taxes on the equipment currently. Based upon Energy Office data for existing installations, approximately 38 percent of installations are leased. Multiplying the total value of \$198,053,000 by 38 percent, the value of the leased installations is estimated at \$75,260,000. At an assessment ratio of 10.5 percent and a projected average millage rate of 351.1, the business personal property tax for residential installations would be up to a maximum of \$2,775,000 in FY 2018-19. The property tax impact for other installations would depend upon the assessment of the property.

Introduced on January 9, 2018

State Expenditure

This bill prohibits an electrical utility, including PSA, from requiring residential customers that are taking service on a default residential rate schedule to be charged a monthly fixed charge that exceeds a reasonable estimate of customer-related costs. The bill does not prohibit a utility from offering optional residential rate schedules that include a fixed monthly charge in excess of customer-related costs. Also, the bill requires each electrical utility to include a line item on customer bill statements to provide the percentage of customer rates that is attributable to deferred recovery of the cost of the generating plant abandoned during construction.

Each electrical utility must adopt the interconnection standards approved by PSC for interconnection of electric generation facilities and on-site distributed energy resources to the distribution grid. Within 180 calendar days of the enactment of this bill, PSC must modify the interconnection standards to provide an expedited procedure for interconnection of on-site distributed energy resources. As soon as practicable, and not to exceed thirty days after the enactment of this bill, each electrical utility must file a net metering tariff with PSC and begin offering net metering service to customers with on-site distributed energy resources. Within thirty days of the enactment of this bill, PSC must issue a notice to request comments and proposals for a standardized net metering agreement from all interested persons. Then, within

150 days of the enactment of the bill, PSC must issue an order approving a standardized net metering agreement for use by electrical utilities subject to commission jurisdiction.

Each electrical utility must develop and implement an incentive program to encourage the installation of an on-site solar energy storage facility to serve the critical loads of the primary residence of a first responder and designated emergency shelters. PSC must allow an electrical utility to recover the prudently incurred costs of implementing and administering the incentive program. Unless otherwise stated, this bill takes effect upon approval by the Governor. The bill also creates an income tax credit for solar property installations similar to the tax credit in Section 12-6-3770 that was repealed on December 31, 2017. Section 8 of the bill creates a property tax exemption for renewable energy resource property. Both tax provisions will be administered by the Department of Revenue.

Department of Revenue (DOR). Based upon previous responses by DOR regarding similar legislation, this bill is not expected to impact the agency's expenditures. We anticipate that the agency can administer both the income tax credit and the property tax exemption with existing staff and resources.

Office of Regulatory Staff (ORS). The expenditure impact of this bill is pending, contingent upon a response from ORS.

Public Service Commission (PSC). The expenditure impact of this bill is pending, contingent upon a response from ORS.

Public Service Authority (PSA). PSA indicates that the bill as introduced proposes significant changes to existing programs and rates and will require additional time to identify the expenditure impact. Therefore, the expenditure impact of this bill is pending, contingent upon further analysis by PSA.

State Revenue

This bill may impact rates for electric utilities, including the Public Service Authority. If the bill reduces the electric rates that customers pay based on their electricity usage, this bill may affect the sales tax, the corporate income tax, the corporate license tax, the electric power tax, and the 1 percent contribution from the Public Service Authority to the General Fund. The impact of the bill on these revenues, and therefore, the General Fund is pending, contingent upon additional review of the potential rate effects by ORS, PSC, and PSA.

The bill adds Section 12-6-3770(A). This section is similar to Section 12-6-3770, which was repealed on December 31, 2017, pursuant to the provisions of Act 134 of 2016. The section allows a taxpayer who constructs, purchases, or leases solar energy property to claim an income tax credit equal to 25 percent of the cost, including the cost of installation of the property. The credit is limited to property that is located on the Environmental Protection Agency's National Priority List, National Priority List of Equivalent Sites, on a list of related removal actions, as certified by the Department of Health and Environmental Control, or on property owned by the Pinewood Site Custodial Trust. The credit is earned in the year in which the solar energy property is placed in service but must be taken in five equal annual installments. Unused credits

may be carried forward for five taxable years. A credit is not allowed to the extent the cost of the solar energy property is provided by public funds. Public funds does not include federal grants or tax credits.

This section of the bill takes effect in income tax years beginning after 2017 and must apply and terminate in the same manner as provided in Section 1.B of Act 134 of 2016. Section 1.B. of Act 134 of 2016 applied for two tax years and was then repealed on December 31, 2017. Under this interpretation, the tax credit may be earned in 2018 and 2019, but any unused credits will be carried forward.

Based upon tax year 2016 income tax returns from the Department of Revenue, South Carolina taxpayers reported approximately \$1,400,000 in income tax credits in tax year 2016 pursuant to Section 12-6-3770. However, taxpayers only had sufficient tax liability to use \$484,000. The remainder will be carried forward. We assume a similar amount of credits will be earned in future years. However, since the new provisions are similar but not identical, the tax credits may be affected to the extent that eliminating the definitions or expanding the list of applicable sites broadens the ability for taxpayers to claim the credit. Tax credits earned in tax years 2018 and 2019 may be taken in five equal annual installments and carried forward for five years from the year the credit may be taken. Therefore, we expect General Fund income tax revenue will be reduced by \$484,000 beginning in FY 2018-19 through FY 2023-24. Any carryforward of unused credits may extend beyond FY 2023-24.

Local Expenditure

N/A

Local Revenue

The bill creates two new property tax exemptions, one for distributed energy resources and one for renewable energy resource property. The first subitem exempts 80 percent of the value of distributed energy resources. The exemption applies to property taxed as business personal property, manufacturing property, or utility property, but electrical utilities are specifically excluded from the exemption. The exemption applies for property that becomes operational after property tax year 2017 and applies for twenty consecutive years after the distributed energy resource becomes operational. Those properties subject to a Fee in Lieu of Taxes agreement are not eligible for this exemption.

The second subitem exempts the full value of renewable energy resource property with a nameplate capacity of no greater than 20 kW. The exemption is applicable beginning after 2017. Renewable energy resource is defined in Section 58-40-10 and includes solar, wind, hydroelectric, geothermal, tidal and wave energy, and other renewable energy resources.

The exemptions are applicable for property tax years beginning after 2017 and must apply and terminate in the same manner as provided in Section 1.B. of Act 134 of 2016. Section 1.B. of Act 134 of 2016 applied for two tax years and was then repealed on December 31, 2017. Based upon this interpretation, we expect that the property tax exemptions will be applicable for two tax years from tax year 2018 to 2019.

The August 2017 report *2016 End of Year South Carolina PV Soft Cost and Workforce Development* prepared by the Savannah River National Laboratory (SRNL) surveyed solar industry professional installers who serve the South Carolina market. Figure 3-2 of the SRNL report includes the average installation sizes by sector for South Carolina specific installations by the surveyed professionals. Based upon this information, the average residential installation capacity was 9 kW-DC, commercial installations averaged 377 kW-DC, and utility installations are significantly larger at 14.8 MW-DC. Therefore, we would expect that since the full exemption for renewable energy resource property is restricted to properties with a capacity of no greater than 20 kW, it is likely to only apply to residential installations. The exemption for 80 percent of the distributed energy resource property value is likely to apply to commercial installations only, as utilities are specifically excluded.

The value of commercial installations that will qualify for the 80 percent exemption for distributed energy resources will depend upon the number of installations and the capacity of the property. Further, properties subject to a Fee in Lieu agreement are not eligible for the exemption. Therefore, the exemption will apply only to a portion of the commercial distributed energy resource property installations. The impact of this exemption on local property taxes is pending additional information from the SC Energy Office and counties.

For residential installations, the energy resource property is not taxed separately from the owner-occupied home in most cases. We have determined from discussions with assessors that residential installations owned by a homeowner and installed on a residence are not taxed separately and cannot feasibly be valued separately from the residence. As such, in order for residential property to qualify for the exemption, the renewable energy property would have to be under a lease agreement or other situation in which a business retains ownership or in a unique situation in which the property was separate from the residence. Further, we have not identified any counties taxing residential renewable energy property in researching similar legislation. Therefore, we do not anticipate that this exemption for renewable energy resource property will have a significant impact on local property taxes.

However, the following analysis provides additional information regarding the potential renewable energy property exempted by this bill:

Based upon the most recent data available from the SC Energy Office through FY 2016-17, approximately 9,900 solar installations with a capacity of 20 kW or less are installed currently with a total capacity of 83,668 kW-AC. This equates to an average of 8.45 kW-AC per installation. Compared to an estimated 2753 residential installations through FY 2015-16, this equates to approximately 7,147 new installations in the fiscal year. If this growth continues for another six months through the end of 2017, solar installations with a capacity of 20 kW or less would increase to approximately 13,473 installations with a capacity of 113,850 kW-AC through 2017.

This information is consistent with nationwide trends. According to U.S. Energy Information Administration (EIA) capacity growth data, U.S. residential solar installations increased at a rate of 43 percent from 2015 to 2016 and are expected to continue growing. Projected residential installation capacity growth from 2016 to 2017 is approximately 27 percent.

The value of renewable energy resource property depends on the energy generation capacity of the property. According to the SNRL report, the average cost for hardware including panels and associated equipment, not installation costs, was \$1.74/watt in the last two quarters of 2016. The Energy Office noted that this report provides the best SC specific data available at this time. Although it measures capacity in DC, whereas installed capacity numbers are measured in AC, the difference is small and depends on the efficiency of the inverter.

Multiplying the estimated \$1.74/watt times an average capacity of 8.45 kW yields an estimate value of approximately \$14,700 per system. For the total estimated 13,473 installations total value is approximately \$198,053,000.

As stated previously, this exemption would only reduce local revenue to the extent that the owner is paying property taxes on the equipment. Businesses that pay property taxes in South Carolina potentially could claim the exemption for residential installations that are leased. Depending upon the structure of the lease and accounting practices, we expect that the majority of the leasing companies are not paying business personal property taxes on the equipment currently. Based upon Energy Office data for existing installations, approximately 38 percent of installations are leased. Multiplying the total value of \$198,053,000 by 38 percent, the value of the leased installations is estimated at \$75,260,000. At an assessment ratio of 10.5 percent and a projected average millage rate of 351.1, the business personal property tax for residential installations would be up to a maximum of \$2,775,000 in FY 2018-19. The property tax impact for other installations would depend upon the assessment of the property.



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