

July 26, 2022

Virginia Department of General Services
Public Body Procurement Working Group
James Monroe Building
101 N 14th St.
Richmond, Virginia 23219

Dear Members of the Virginia DGS Public Body Procurement Working Group,

The Electrification Coalition is pleased to submit the following public comments in response to the request for information related to Virginia's Senate Bill (SB) 575, Fleet Optimization, on the use of total cost of ownership (TCO) calculations by state fleet managers as they consider new or replacement vehicles for their fleet.

The [Electrification Coalition](http://www.electrificationcoalition.org/)¹ (EC) is a nonpartisan, nonprofit organization that advances policies and actions to facilitate widespread deployment and adoption of electric vehicles (EVs) in order to reduce the economic, public health, and national security risks caused by America's dependence on oil. The EC has direct experience working at the local, state, and federal levels for cities, states, and businesses. Further, the EC has more than a decade of on-the-ground experience providing technical and program support to fleets on the transition to electric vehicles. Our work includes supporting cities to create successful EV adoption programs, including 250 public fleets through the award-winning [Climate Mayors EV Purchasing Collaborative](https://driveevfleets.org/),² serving as the technical fleet electrification lead on the American Cities Climate Challenge; and developing comprehensive transportation electrification roadmaps for [Boston, MA](#),³ [Raleigh, NC](#),⁴ and the District of Columbia.

Mass adoption of EVs is key to addressing our economy's reliance on oil and the national security risks associated with an opaque oil market. Given that oil currently powers 90% of our nation's transportation system, our overreliance on oil affects not only our national security but our economic security as well. EVs are powered by electricity—transitioning to EVs can improve our national security by decreasing our reliance on any one feedstock, and the growth of the EV industry means new jobs not only in the automotive sector, but also in the technology, innovation, and electricity sectors. EVs represent an opportunity to maintain U.S. global leadership in auto manufacturing. The auto sector currently [supports 9.9 million jobs](#)⁵ and generates nearly \$1 trillion each year. Building, driving, and charging electric vehicles in the U.S. represents job opportunities across the entire EV supply chain.

¹ Electrification Coalition: <https://www.electrificationcoalition.org/>

² Climate Mayors EV Purchasing Collaborative: <https://driveevfleets.org/>

³ City of Boston's Zero Emission Vehicle Program: <https://www.boston.gov/departments/transportation/recharge-boston-electric-vehicle-resources>

⁴ City of Raleigh Transportation Electrification Study: [https://cityofraleigh0drupal.blob.core.usgovcloudapi.net/drupal-prod/COR27/EV Study_Final.pdf](https://cityofraleigh0drupal.blob.core.usgovcloudapi.net/drupal-prod/COR27/EV%20Study_Final.pdf)

⁵ <https://autoalliance.org/economy/>

EC's experience working with fleets on transportation electrification confirms that fleet managers prioritize costs as they assess which vehicles in their fleet should be replaced and which new vehicles to procure. The goal is to ensure that staff has access to the vehicles they need to complete their daily assigned tasks at maximum operational effectiveness while promoting fiscal responsibility by incurring the lowest overall cost.

The EC supports data-driven decision-making on fleet vehicle procurement decisions and appreciates this Workgroup's focus on TCO calculations. TCO calculations help support fleet managers' needs to consider the all-inclusive cost of vehicles, from their purchase price to vehicle maintenance and operation. Fleets are increasingly investigating the transition to electric options since EVs are superior to internal combustion engine (ICE) vehicles in terms of efficiency and operational costs. Electricity is domestically produced and relatively stable and low in price compared to oil, a price-volatile global commodity. EVs also have far fewer moving parts than an ICE vehicle, and in terms of the technology, EVs directly convert more of the energy in their fuel (electricity) to motion. All told, for fleet managers, EVs mean reduced maintenance costs and 50-60% less operating costs.

These operational savings extend over the life of the vehicle but do not offset the high up-front purchase price for EVs, which is often a barrier to adoption. A TCO analysis is therefore highly recommended prior to vehicle procurement, as it can clearly highlight the lifecycle savings of electric vehicles *versus* a business-as-usual approach to vehicle types.

Below we highlight additional information on the availability, suitability, and appropriateness of DGS and other state agencies using TCO calculators to assess vehicle purchases:

- **The availability of public TCO calculators for medium-duty and heavy-duty vehicles, and their suitability for use by DGS and other state agencies**

Based on the needs communicated by our fleet partners, the EC, as well as other entities, have developed TCO tools to help support fleets in their transition to electrification. The EC (with Atlas Public Policy) specifically developed one such tool in 2021, available at no cost—the [Dashboard for Rapid Vehicle Electrification \(DRVE Tool\)](#).⁶ The DRVE Tool provides powerful, turnkey fleet analytics to fleets in need of quickly assessing where electrification is best matched across their light-, medium-, and heavy-duty vehicles. The DRVE Tool is designed to be highly customizable, allowing users to develop various financing, charging, and usage scenarios to identify various deployment options. The DRVE Tool is designed to securely run on users' local computers and can produce detailed vehicle comparisons and reports in under an hour.

TCO calculations can often require a variety of critical inputs for accurate results. Vehicle Identification Numbers (VINs) are used for the DRVE Tool, allowing for further decoding of vehicle specifications such as year, make, model, and engine size (utilizing [National Highway Traffic Safety Administration](#)

⁶ Dashboard for Rapid Vehicle Electrification: <https://www.electrificationcoalition.org/resource/drve/>

[database](#)⁷). Additional data such as annual vehicle miles traveled (VMT) and retirement age/service life can also be set on a vehicle-by-vehicle basis to further refine TCO calculations.

The DRVE Tool works by mapping each current fleet vehicle to a user-defined EV, and then providing a comprehensive TCO analysis that compares both vehicles' retail price, operational cost (i.e., fuel price/electricity rates), depreciation, applicable taxes/fees, typical maintenance costs and other factors over the service life of the vehicle. The results are expressed in 'nominal cost per mile,' a uniform basis of measurement which makes it easy for fleet managers to compare vehicles with different characteristics. DRVE analyses are displayed in an appealing user interface with an interactive dashboard that users can employ to narrow their insights and further focus the comparisons.

Overall, the DRVE Tool has seen tremendous response and use from public and private fleets: over 20,000+ vehicles have been assessed across 400+ fleets. Other TCO calculators also exist, such as [the Department of Energy's AFLEET Tool](#)⁸ and [Environmental Defense Fund's Fleet Electrification Center](#),⁹ which can also serve as examples for implementing publicly-available TCO calculators to meet the state's needs.

- **Information on the appropriateness of requiring DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion engine (ICE) vehicles versus comparable electric vehicles (EVs) prior to purchasing or leasing any medium-duty or heavy-duty vehicle.**

Regardless of the specific calculator used, the shift to medium and heavy-duty (MHD) EVs is accelerating through improved technology, private sector investment, opportunities to capitalize in the competing global market, and meeting federal and state climate goals. A [study](#)¹⁰ from the National Renewable Energy Laboratory found that as improvements to electric vehicle technologies continue, medium- and heavy-duty vehicle classes will reach total cost parity with conventional diesel vehicles by 2035. Additionally, [a study from ICCT](#)¹¹ showed that the financial benefits of the transition to MHD ZEVS will be significant and that a number of depot-charging electric truck applications will be cost-competitive with diesel in the near future. As the market for medium- and heavy-duty vehicles continues to grow, these vehicle options will expand and continue to be integrated into the DRVE Tool and other TCO calculators.

⁷ National Highway Traffic Safety Administration database: <https://vpic.nhtsa.dot.gov/>

⁸ Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool: <https://afleet.es.anl.gov/home/>

⁹ Environmental Defense Fund's Fleet Electrification Center: <https://www.electricfleet.org/>

¹⁰ (NREL) Decarbonizing Medium- and Heavy-Duty On-Road Vehicles: Zero-Emission Vehicles Cost Analysis: <https://www.nrel.gov/docs/fy22osti/82081.pdf>

¹¹ (ICCT) Estimating the Infrastructure Needs and Costs for the Launch of Zero-Emission Trucks: <https://theicct.org/publication/estimating-the-infrastructure-needs-and-costs-for-the-launch-of-zero-emission-trucks/>

It is therefore critical that fleets employ TCO analyses to support the purchase or lease of MHD vehicles. Such vehicles typically have 10-year (or longer) retirement ages, which means that the decision to add ICE assets in these vehicle classes will lock the fleet into a potentially unpredictable future fuel procurement cycle. All fleets undertake some cost-benefit assessment as they investigate vehicle purchases, and so DGS and other VA state agencies are encouraged to employ a TCO calculator such as the DRVE Tool to analyze their vehicle replacement schedules and the opportunity for savings by transitioning to market-available EVs. Completing this inquiry prior to the purchase or lease of MHD vehicles can spearhead the deployment of advanced transportation technologies by the fleet and avoid investments in less-efficient vehicles.

The DRVE Tool is appropriate for use by state agencies because it was developed with public fleets in mind. Built using Microsoft Excel, DRVE is a publicly accessible virtual tool that automatically pulls ICE and EV retail prices and technical specifications from federal open-source databases, including the Department of Energy and the National Highway Traffic Safety Administration (NHTSA). Thanks to the DRVE Tool's highly customizable nature, it is well-positioned to assist users as they build detail into their procurement scenarios. A cash purchase, the terms of a lease agreement, applying state or local rebates/incentives, and even building the cost of the charging infrastructure (if known) into the per-mile cost of the EV are all options supported by the DRVE Tool's analysis.

We thank you for the opportunity to provide comments and share information about TCO calculators and look forward to working with you. For any follow-up, please contact **Cher Griffith Taylor**, at ctaylor@electrificationcoalition.org.

Thank you.

Sincerely,



Cher Griffith Taylor
Senior Program Specialist
Electrification Coalition



Richmond Area Municipal Contractors Association

9702 Gayton Road, Suite 332, Richmond, Virginia 23238

Telephone (804) 346-0522

www.ramca.info

July 27, 2022

To: Public Body Procurement Workgroup

Re: SB 550 (Bell)

On behalf of the many supporters of the SB 550 (Bell), we write to outline the issues and some of the background that led to this legislation being enacted. Our members have increasingly seen “paid if paid” language in contracts for subcontractors, meaning that the general contractor will pay the subcontractor for work once the owner pays the general contractor. This language protects the general contractor in the event of non-payment from an owner, but places subcontractors at risk of non-payment, after they have completed the work. Subcontractors have no relationship with – and are often prohibited from having contact with – an owner. Paid if paid clauses have become ubiquitous in construction contracts, making it harder for subcontractors to work with general contractors that do not utilize them.

We strongly believe subcontractors should not have to bear the lion’s share of the risk in these instances and should be compensated for work they perform that is delivered defect free.

Subcontractors expend payroll, purchase materials, and purchase or lease equipment, and non-payment puts them at great financial risk. Without SB 550, private projects subcontractors can lien the work and wait for a general contractor and owner to go to arbitration, in the hopes of recouping a fraction of their costs if they are not paid.

For public projects, subcontractors are prohibited from placing liens on the work, and while the risk is less, subcontractors have issues being paid by general contractors on change order work. Most subcontracts require the subcontractor to proceed with change order work under a directive from the general contractor in advance of the public owner approving or funding the change. This provision ensures that the project proceeds without delay but places the burden of financing the change on the subcontractor. It can be months, or even years, before the change gets formalized into an approved change order. SB 550 brings equity to this issue, ensuring the subcontractor gets paid in a timely manner for their change order work.

SB 550 simply levels the playing field on public and private projects, ensuring that subcontractors receive timely payment for the work they perform. It is important to note that many members of our association, and other companies that supported SB 550, also work as general contractors. They too would be required to adhere to the requirements in the bill, and feel they are fair and reasonable.

We met several times with representatives from Associated General Contractors of Virginia (AGCVA) before and during the 2022 session of the Virginia General Assembly to try and find some consensus on the issue. We also had several discussions with the Virginia Contractor Procurement Alliance. Unable to find any middle ground on any meaningful solutions that would remedy the situation, we worked with the Associated Builders and Contractors (ABC) of Virginia, as well as more than 250

Virginia companies and a dozen trade associations on the final product that passed the General Assembly and was signed into law by Governor Youngkin. Supporters of SB 550 are included with this letter.

We appreciate the efforts that DGS, the Virginia General Assembly, and Governor Youngkin and his staff have put into this issue. We also stand ready to work with this workgroup on any outstanding issues related to nonpayment between general contractors and subcontractors.

Best Regards,

Brian Conrad

Chief Operating Officer, Lee Hy Paving
President of RAMCA 2022 - 2023



July 26, 2022

Virginia Department of General Services
1100 Bank Street, Suite 420
Richmond, Virginia 23219

Dear Public Body Procurement Workgroup Members,

On behalf of the Associated General Contractors of Virginia (AGCVA), we appreciate the opportunity to provide public comment on Senate Bill 550, which prohibits pay-if-paid provisions from construction contracts.

As the trade association that represents both general contractors and specialty contractors, AGCVA is in the unique position of representing members on both sides of the issue. AGCVA recognizes the issue of subcontractors not being paid for work completed. AGCVA's guiding principles have been to find a solution that 1) protects general contractors, 2) protects specialty contractors, and 3) preserves the freedom to contract.

When SB 550 was filed during this year's legislative session, AGCVA found fundamental and technical issues that were difficult to resolve within the limited timeframe of session. Despite good-faith efforts on both sides to reach a compromise and several revisions that moved the legislation in a positive direction, AGCVA still had several concerns with the final bill.

The General Assembly's decision to delay the bill's enactment and refer it to this workgroup has afforded stakeholders the valuable time needed to continue working toward a solution that serves the greatest amount of people in the industry without creating unintended consequences. Today, AGCVA is pleased to share several recommendations for the workgroup to consider:

1. Provide contractors the ability to fully analyze an owner's financial situation.

As written, SB 550's prohibition of pay-if-paid provisions shifts an undue portion of the financial risk of a construction project from owners and subcontractors to the general contractor. Given the increased risk, it seems reasonable to provide general contractors the prerogative to vet an owner's financial situation as comprehensively as possible prior to committing to a contract.

However, despite a rigorous vetting process, it is currently impossible for a general contractor and his or her subcontractors to know the full scope of an owner's finances. Owners currently have the discretion to strike financial disclosure clauses from contracts, which leaves all contractors little recourse for full financial transparency. From AGCVA's perspective, if pay-if-paid clauses are deemed unenforceable in Virginia, an owner's ability to strike financial disclosure clauses from contracts should also be unenforceable.

Further, the workgroup could consider a mechanism for payment guarantee from the owner. Owners routinely require general contractors to purchase a payment bond and general contractors may require similar of their subcontractors, so requiring something similar of owners could help mitigate the increased risk of the general contractor.

2. Establish consistency and clarity of the payment conditions for the owner-general contractor-subcontractor relationship.

While SB 550 was introduced to address issues of nonpayment, the inconsistent payment conditions as outlined in the legislation could make compliance more difficult and would likely generate more disputes.

Section B of §11-4.6 outlines a straightforward timeline for an owner to pay a general contractor, stipulating payment “within 60 days of the receipt of an invoice following satisfactory completion of the portion of work for which the general contractor has invoiced.” It then permits withholding by the owner “for the general contractor’s noncompliance with the contract” and requires written notice of withholding payment “with reasonable specificity.”

However, section C establishes inconsistent and more convoluted payment conditions from higher-tier contractors to lower-tier contractors:

- While Section B only applies to construction contracts (a defined term), Section C applies to “any contract in which there is at least one general contractor and one subcontractor.” This difference in language is a potential source of confusion.
- Instead of the Section B language of “receipt of an invoice following satisfactory completion,” the payment timeline in Section C runs from “60 days of the satisfactory performance of the work for which the subcontractor has invoiced or seven days after receipt of amounts paid ... for work performed by a subcontractor pursuant to the terms of the contract.” The language defining the timeline for payment differs from Section B, leading to inconsistency, confusion, and different timelines and conditions for payment.
- The higher-tier contractor’s ability to withhold payment in Section C appears to be more limited than an owner’s ability to withhold payment in Section B for no apparent reason. In fact, it requires a high-tier contractor to understand what portion of its work was performed by sub-subcontractors, which is often unrealistic and not always readily apparent on a project. The standard for withholding by an owner set forth in Section B should equally apply to higher-tier contractors in Section C.

The issues with the confusing language and inconsistent requirements on payment timelines and conditions could be vastly improved by simply mirroring the payment timeline language from section B and using it in section C.

3. Amend Virginia’s mechanic’s lien statute to make it a more accessible recourse for payment.

A mechanic’s lien is a tool that all contractors can and do utilize to ensure payment for work completed. While lien rights exist in every state to provide contractors a recourse for payment, Virginia’s mechanic’s lien statute is unnecessarily limited. First, the deadline to file a mechanic’s lien is only 90 days. Second, the mechanic’s lien can only include sums for labor and materials furnished within 150 days prior to the last date they were furnished. Even worse, a single unintended error that breaches the 150-day rule would invalidate the entire mechanic’s lien. Given the harsh consequences, the 150-day rule does not seem to serve a practical purpose other than to arbitrarily obfuscate the process to file a mechanic’s lien. Virginia is the only state with this 150-day rule.

With the added burden that contractors now face to make payment even when an owner may not have paid for work performed, the mechanic's lien statute should also clarify that the higher-tier contractor can take an assignment and enforce the lien of the lower-tier contractor in order to better protect themselves and encourage payment. Such a right may exist in common law, but the better course of action is to make Virginia's mechanic's lien law clear on this issue.

While SB 550 does not specifically address the mechanic's lien statute, AGCVA recommends amending it to strike the 150-day rule, extend the deadline to 120 days, and expressly permit a right of assignment of a lien. These revisions would strengthen Virginia's mechanic's lien statute and better equip contractors regardless of tier with a more formidable recourse for payment.

AGCVA envisions an environment where the risks of a construction contract are minimized and equitably shared between owners, general contractors, and subcontractors. Thank you for your consideration of AGCVA's recommendations, and please do not hesitate to reach out if you have any questions.

Sincerely,

The Associated General Contractors of Virginia (AGCVA)
11950 Nuckols Road
Glen Allen, Virginia 23059



2655 Lakeside Drive • P.O. Box 4205 • Lynchburg, VA 24502 • (434) 385-6200 • Service Division (434) 385-7700
<http://southern-air.com> • License Numbers: VA 2701001733 • WV 001545 • NC L.34582 & U.33082

Statement to the Public Body Procurement Workgroup
SB 550 – Payment to Subcontractors
July 28, 2022

Southern Air is a large mechanical and electrical subcontractor operating primarily in the Commonwealth of Virginia. We contract with General Contractors and Construction Managers for both public and private projects of widely varying amounts ranging up to \$25 million. I am speaking in support of SB 550 as passed. As a matter of principle, Southern Air will not sign an unconditional Pay if Paid clause with any contracts. We make this intent clear in any preproposal meetings and it is included in all our proposal letters. We will accept Pay if Paid only on the condition of insolvency or bankruptcy of the owner. We spend an inordinate amount of time negotiating this one item and always get the modifications approved in our contract. Many smaller subcontractors do not have the sophistication to perform these negotiations or feel powerless with a much larger customer and relent to the standard contract terms and sign pay if paid clauses. This exposes them to undue risk in the project and would likely bankrupt any of these companies with a single nonpayment event of any size. This nonpayment could be from no fault on their part. This includes many SWAM subcontractors that are being placed at risk just when the Commonwealth is trying to increase their numbers and support their growth. Over the last twenty-five years, Southern Air cannot attest to any nonpayment in this area because we refuse to sign contracts with these clauses as they have become more prevalent.

Many prime contractors have argued the mechanics lien laws provide protection for the lower tier subs. The mechanics lien laws do now contain language which supersedes the pay if paid clauses. This provides protection only if a lower tier subcontractor who can follow the highly time sensitive mechanics lien requirements. If a subcontractor is not timely or does not perfect the lien exactly as the law demands this protection is void. Following these lien laws is difficult at best for a highly sophisticated lower tier sub, which is why liens are often prepared and filed by attorneys. This is an additional and often unaffordable expense to small subcontractors. It is very difficult for a smaller sub who is just trying to run their business. This is another fact that puts SWAM subcontractors at risk. By the letter of the law there is protection under the mechanics lien, however, the reality of perfecting these liens is very challenging in real time. Further, liens are only available on private projects. On public projects, payment bonds provide some protection, but the state of the law is unclear on whether bond sureties can rely on pay if paid clauses in subcontracts.



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The pay if paid clause is used by prime contractors to shift risk down to subcontractors. This forces the subcontractor community to provide financing for the project, an unreasonable burden when the owner's virtually sole obligation in a construction project is to finance the work. The American Bar Association states these clauses "are customarily viewed extremely unfavorably; as the risk transfer downward to the lower tier subcontractors is usually viewed as inequitable and patently unfair." They go on to state the shifting of risk to lower tier subs is also unfair because they are not in privity with the owner and unable to enforce payment clauses in the prime contract. We often find clauses in our subcontracts where the prime will forbid us from communicating with the owner. How are we, as a lower tier sub, able to evaluate the risk at the beginning or throughout a project if we do not have any direct contract or knowledge of the owner and the owner/prime contractor relationship. The Prime contractor is the Captain of the ship and should act as such and not pass the buck to his crew, the lower tier subs, who have no vision of the voyage.

As subcontractors, we must pay our employees on a weekly basis. We must pay our equipment and material vendors typically within thirty days of receipt of any equipment or materials. These vendors perform credit evaluations of our company and would not be willing to accept agreements with us that state we will pay them if and when we get paid. Our obligations to our employees are similarly restricted – they would not work for us if we told them their paychecks were at risk every pay period if a GC failed to pay us. Why should the lower tier subcontractors bear the potential burden of financing the project any further if for some reason the owner is unwilling to pay the Prime. This nonpayment could be for a dispute about problems with the prime contractor or other subcontractors and no fault of ours. These clauses put all subcontractors at undue risk for a situation over which they have no control. Why is it fair for a prime contractor who typically in today's construction world has very little skin in the game in that they self-perform little if any of the construction in the field. Most prime contractors have very few employees on the project and buy very little in the way of equipment and materials. The prime contractors' financial exposure is very small in comparison to all the lower tier subcontractors on the project. These clauses put the firms doing all the work at risk for nonpayment with no control over the situation. How is this fair?

In summary, we feel the General Assembly got this one right. The responsibility for payment should remain with the prime who has contracted with the owner. This law complements similar legislation with our neighbors in North and South Carolina. We ask the working committee to allow this law to stand as written. It is only fair to ask the prime to fulfill his duty as captain of the ship.

Paul Denham, President
Southern Air
(434) 385-6200
paul.denham@southern-air.com



2nd Statement to the Public Body Procurement Workgroup
SB 550 – Payment to Subcontractors
July 28, 2023

ACE and ASAMW respectfully ask that this work group re-frame their discussion on nonpayment. SB550 addresses the major problem of a subcontractor not receiving payment for work properly completed according to the construction documents. Because of SB550 the subcontractor will not be the sole entity responsible for payment. SB550 places the general contractor and owner in a position to also accept responsibility for payment for work completed.

The larger issue this work group should address is change orders; in other words, how to assure subcontractors receive timely payment when the owner directs a change to the construction that is not included in the scope of the subcontractor's work. This is a major issue on both public and private contracting and a major issue in non-payment between general contractors and subcontractors.

ACE and ASAMW suggest that this work group initiate a study to determine:

1. The magnitude of the problem of payment of change orders on state construction.
2. How payment issues such as payment of change orders prevents small, disadvantaged and minority subcontractors from successfully competing on construction projects for the Commonwealth.
3. Possible solutions other states have used to insure payment to subcontractors.

ACE and ASAMW will assist with this study as much as possible.

Who is ACE – the Alliance for Construction Excellence?

- National Electrical Contractors Association (NECA) – Annandale Virginia
- Mechanical Contractors Association of Metropolitan Washington (MCA)
- Atlantic Coast Chapter – National Electrical Contractors Association (NECA)
- American Subcontractors Association of Metro Washington (ASA)
- Mechanical Contractors Association, Inc. (MCA)
- Iron Workers Employers Association of VA, MD, and D.C. (IWEA)
- Mid-Atlantic Chapter - Sheet Metal and Air Conditioning Contractors' National Association (SMACNA)

Please visit our Website <http://allianceforconstructionexcellence.com/>

For More Information Contact:

David Bailey, David Bailey Associates

804-405-8108 or dbailey@capitol-square.com

Fred Coddling, Iron Workers Employers Association, Fairfax, VA

703/591-1870 or fhcoddling@erols.com

Ike Casey, Executive Director of ASA of Metro Washington

571/237-7101 or ike@asamw.org

JT Thomas, National Electrical Contractors Association and ACE Chairman

(703) 658-4383 or JT@wdcneca.org

SUPPORTERS OF SB550

Trade Associations

Associated Builders and Contractors - Virginia Chapter (ABC VA)

Alliance for Construction Excellence (ACE)

American Subcontractors Association (ASA)

Hampton Roads Utility and Heavy Contractors Association (HRUHCA)

Heavy Construction Contractors Association (HCCA)

Iron Workers Employers Association (IWEA)

Old Dominion Highway Contractors Association (ODHCA)

National Electrical Contractors Association (NECA) – Atlantic Coast Chapter

Precast Concrete Association of Virginia (PCAV)

Sheet Metal and Air Conditioning Contractors Association (SMACNA) – Mid-Atlantic Chapter

Richmond Area Municipal Contractors Association (RAMCA)

Virginia Asphalt Association (VAA)

Corporations

A&A Contractors, LLC.

A&M Drywall Construction Inc.

Abbey Commercial Flooring

Ace Hydroseeding

Acme Mechanical Contractors of VA, Inc.

Advanced Drainage Systems, Inc.

Airway Sheet Metal Company, Inc.

Aldridge Electric, Inc.

Alkat Electrical Contractors, Inc.

Alpha & Omega Hauling, LLC.

Anderson Mechanical Services, Inc

Annandale Balancing Company, Inc

Annandale Millwork and Allied Systems Corporation

Atlantic Constructors

Austin Electric Company

AVA Electric Co., Inc.

B.G. Nelson, Inc.

B&S Contracting, Inc.

Badger Daylighting Corp

Bagby Electric of Virginia Inc.

Barfield Concrete, Inc

Beckstrom Electric

Bell Companies

Benchmark Utility Services

BESCO Electric

Biggs Construction Company, Inc.

BION, inc.

Bissette Construction Corporation

Blackwater Electric

Blair Brothers, Inc.

Blakemore Construction Corporation

Blasting Services, LLC.

Blue Ridge Roofing, Inc.

Boring Contractors, Inc.

Boschen Masonry

Bract Retaining Walls and Excavating

Branscome Incorporated

Bruce Howard Contracting

Bryant-Ritter Electric Corporation

BSA Contractors LLC

Burnett & Jensen Corp.

C.A. Liebert, Inc.

G&C Quality Plumbing, Inc.

C.T. Purcell Excavating, LLC

Calvert Masonry, Inc.

Canada Contracting Company, Inc.

Carter Machinery

Castle Equipment

Cedar Mountain Stone Corp.

Carl M. Henshaw Drainage Products Inc.

Central Site and Utilities, Inc.

CCCI-Gov, Inc.

CD Hall Construction, Inc.

CEA Insulation, Inc.

Century Concrete

Chemung Contracting Corp.

Chewning & Wilmer

CJGeo

SUPPORTERS OF SB550

Cleveland Cement	Gaitan Construction Solutions, Inc.
Clover Contracting, Inc	George Urban Heating & Air
Coastal Electric Corp.	Gillies Creek Industrial Recycling
Colonial Construction Materials	Glidewell Bros., Inc.
Colonial-Webb Contractors	Goodman Excavating, LLC.
Colony Construction, Inc.	H.W. Blankenship & Sons, Inc.
Commercial Electric	Hallmark Iron Works, Inc.
Commonwealth Landcare	Haislip Corporation
Concreate, Inc.	Hanley Energy
Concrete Pipe & Precast (CP&P)	Hazzard Electrical
Contemporary Electrical Services, Inc.	Howell's Heating & Air
Cranemasters, Inc.	Hudson Sheet Metal Co Inc
D.H. Griffin Companies	Hurricane Fence
D.M. Conlon	Hyper Clean Duct Cleaning LLC
Dan-Kel Concrete Cutting	Independence Excavating, Inc.
Dailey Roofing	Integrated Scaffolding Concepts
Davis & Green, Inc.	Instrumentation & Control Systems Engineering, Inc (ICSE)
Design Electric, Inc.	Iron Sheepdog
Dino's Prestige Painting, LLC.	Ivener Management Group, LLC
Direct Current	J.E. Liesfeld Contractor, Inc.
Draper Aden Associates	J.L. Minter Electrical Contractor
Drillcore, LLC.	J.R. Caskey, Inc.
Dwight Snead Construction Company, Inc.	J.R. Tharpe Trucking Co., Inc
Dynalectric Company	J.S.G Corporation
E.G. Middleton, Inc.	James River Air Conditioning Co.
E.J. Wade Construction	James River Equipment
East River Construction, Inc.	James River Interiors
EMC Mechanical Services, LLC.	James River Nurseries
Engineered Services, Inc	JE Richards
Engineering Design Associates	JRC Mechanical, LLC
Ennis Electric Company, Inc.	Julius Branscome, Inc.
Environmental Waste Specialists, Inc.	KC Insulation
Eric'sons, Inc.	KP Glass Construction
F.G. Pruitt, Inc.	L2 Construction Services
F. Richard Wilton Contractor	Landscape Supply, Inc.
Faulconer Construction	LaRs Group
Ferguson	Lawrence Equipment
Ferrara Equipment	Lee Hy Paving Corporation
Finish Line Environmental	Lloyd Concrete Services, Inc
Firestop of Virginia, Inc.	Long Fence Co., Inc.
Folkes Electrical Construction	Louis Smith Construction
Fort Meyer Construction	Luck Ecosystems
FortyTwo Contracting	Luck Stone Companies
Freestate Electric	M&E Contractors, Inc.
Fridley Brothers, Inc.	MasTec North America, Inc.
G.L. Howard, Inc.	Metheny Contracting, Inc.
G.J. Hopkins Lacy	

SUPPORTERS OF SB550

Mid Atlantic Steel Erectors, Inc
Mid-Atlantic Concrete, Inc.
Miller Electric Company
Momentum Earthworks
Nansemond Pre-Cast Concrete Co., Inc.
Nationwide Electrical Services, Inc.
NET100, Ltd
New Field, Inc.
New River Electrical Corp.
No Days Off, LLC.
NOVA Power Systems
O'Dorisio Carpentry & Concrete, LLC.
Oldcastle Infrastructure
Old Dominion Abatement & Demolition
Old Dominion Firestopping
Old Domion Heat Trace
Old Dominion Insulation
Paramount Mechanical Corporation
Petke Construction Company, Inc.
PerLectric, Inc.
Permatile Concrete Products
Pillar Construction, Inc.
Potomac Testing
Power Solutions
Possie B. Chenault, Inc.
Precision Electric
Preferred Insurance Services, Inc.
Press Mechanical Contractors, Inc.
Preston H. Roberts, Inc.
Pruitt Corporation
Pryor Hauling, Inc.
Quality Wall Systems, Inc.
R-TEC Services, LLC.
Reese Transportation
Richard L. Crowder Construction, Inc.
Richardson-Wayland Electrical Corp.
Richmond Lot Striping & Sealcoating
Richmond Traffic Control, Inc.
River City Site Solutions, LLC.
RJ Smith Construction Inc.
RJ Smith Demolition Inc.
RJ Smith General Contracting Inc
RMM Enterprises
Rosendin Electric, Inc.
RSG Landscaping & Lawncare
RTL Electric Company Inc
Rudy L. Hawkins Electrical

Ruston Paving Company, Inc.
Ryan Incorporated Central
S&B Concrete, Inc.
S.B. Cox, Inc.
S.L. Williamson Company, Inc.
Sargent Corporation
Saunders Contracting Services, Inc
Shoosmith Construction, Inc.
SLS3 LLC
Slurry Pavers, Inc.
Smith, Currie & Hancock LLP
Southers Concrete, Inc.
Southland Industries
Southland Insulators, Inc.
Sparkle Painting Co., Inc.
Stable Foundations
Stamie E. Lyttle Co.
Stanley Construction Co, Inc.
SteelFab of Virginia, Inc.
Steele Foundation, LLC
Stillwater Construction Group
Stocks Management Group
Superior Iron Works, Inc.
Tate & Hill
Thompson Greenspon
Timmons Group
Titan Mechanical Inc.
Titan Plumbing, Inc.
Tribble Electric, Inc.
Tolley Electrical Corporation
Torque Supply
Ty's Hauling & Paving, Inc.
Tysons Service Corporation
United Masonry, Incorporated of Virginia
USA Civil Inc.
USA Iron and Metal Inc.
USA Logistics and Leasing Inc.
USA Materials Inc.
Venture Electric Company
W.E. Jackson Electrical Contractor
W-L Construction & Paving, Inc.
W.O. Grubb Steel Erection, Inc.
W.R. O'Neal Electric, Inc.
W.S. Connelly & Co., Inc.
Wayne Insulation Co., Inc.
WC Spratt, Inc.
Wells Paving & Seal Coating

SUPPORTERS OF SB550

Whitescarver Engineering Co.

William T. Cantrell, Inc.

William A. Hazel Incorporated

Wolf Contractors Inc

Woodfin Heating, Inc.

Wright's Iron, Inc.

WW Nash

Yard Works

Youngblood, Tyler & Associates, P.C.