

EXPERIENCE

1. The ESCO's experience in auditing and identifying energy and utility conservation projects

Apollo Solutions Group (ASG) has extensive experience in auditing and identifying energy and utility conservation opportunities and projects. Our team has developed over \$150,000,000 in ESPC projects, generating over \$200,000,000 in savings.

We pride ourselves on collaborating closely with our Clients, from the facilities to executive levels. We work hard to understand everything including future remodel, expansion and master plans, equipment obsolescence issues, operating inefficiencies, compliance and safety issues, financial criteria, budget cycles, competition for capital dollars and dept capacity, desired public image, and organizational short and long term goals and objectives. Experience has taught us that collaborating closely with our Clients, and taking the time needed to truly understand all the issues they face, ensures we can craft an ESPC project that will align with their objectives, thus turning an audit into an executable project that will produce positive results.

Once we understand the Client's objectives and challenges, we apply our vast experience to leverage every possible solution to maximize the project's positive impact. We have extensive experience in lifecycle cost analysis, project financial performance analysis, and in obtaining incentives (see question 5 for more detail on incentives). Unless instructed to do so by the Client, we do not look only for "low hanging fruit". Examples of the technical solutions we are

experienced in exploring with our holistic approach to developing a project include: renewable energy solutions such as complex central plant reconfiguration and optimization including optimized pumping, boiler system efficiency increases, chiller upgrades, boiler upgrades, low temperature Organic Rankine Cycles, anaerobic digesters, biomass, low temperature geothermal, solar PV, solar thermal for water heating, process and pools, and micro wind; water conservation solutions such as irrigation controls and redesign, electronic flush valves, faucets, urinals and water





closets, and grey water or rainwater reclamation; cogeneration, back pressure turbines, thermal storage, heat recovery, air distribution systems optimization and conversions, variable refrigerant flow systems, dedicated outdoor air systems with chilled beam cooling and or radiant heating, infrared heating, filtration solutions for towers and pools, pool heat recovery and humidification control, pool cover and evaporative surface reduction technology, energy management system expansion, optimization and upgrades, energy saving control strategies, and lighting upgrades including parking, exit, traffic, and interior spaces, building envelope tightening for reduced air infiltration or heat loss, window upgrades or replacements, insulation upgrades and cool roofs.

The following is a list of ESPC specific projects developed by the ASG team in the last two years:

CLIENT	PROJECT	VALUE	CONTACT
Kadlec Health System	Kadlec Regional Medical Center ESPC	\$8,162,417	Jason Rose (509) 942-3087
Columbia School District	Columbia School District	\$1,700,000	Dr. Lou Gates (509) -547-2136
Lake Washington School District	Lake Washington School District	\$5,100,000	Jed Reynolds (425)-936-1192
INHS	St Luke's Rehabilitation Center	\$7,700,000	Randall Sharshan (509)-252-6717
WA Dept of Corrections	Monroe Correctional Complex	\$1, 800,000	Anna Crickmer (360)725-8368



2. Provide a matrix of the range of energy and utility management services provided ESCO including the ESCO’s capability to provide the following services: energy auditing, financing, design, general contracting, construction management / administration , testing and balancing, commissioning, warranty services, measurement and verification of savings, energy savings guarantees and facilitating utility participation to maximize utility rebates and incentives.

Our professionals are highly proficient in areas such as applying energy and water conservation technologies, determining savings, project design, measurement and verification strategies, project financing alternatives, project management, commissioning, facilities operations, predictive and preventive maintenance, training, and guarantee performance monitoring. Apollo provides the following services for our performance contracting projects. The below is a matrix of the range of Apollo’s energy and utility management services.

Service	Apollo Provided	Third Party	Not Provided
• Energy Audit	X		
• Financing	X	X	
• Engineering Design	X	X	
• General Contracting	X		
• Construction Mgmt/Admin	X		
• Testing and Balancing	X	X	
• Commissioning	X	X	
• Warranty Services	X	X	
• Measurement and Verification	X		
• Energy Savings Guarantees	X		
• Facilitating Utility Participation			
• Training	X		

As a leader in energy efficiency Apollo has an extended network of subcontractors, many of whom provide us with their best industry pricing. Also, we regularly team with customer-preferred subcontractors in an effort to increase project confidence. Apollo has a fair and balanced process for ensuring competition among well-qualified subcontractors so that our teams can deliver exceptional value to our customers. Apollo is vendor-neutral.



Heating Systems	Cooling Systems	HVAC Systems	Control / Automatic Systems
<ul style="list-style-type: none"> • Burner Stack Heat Reclaim • Geothermal Heat Pumps • Gas Line Turbulators • Electric Heating to Gas • Steam Trap Retrofits • Steam Pressure Control • Boiler Replacement • High Efficiency Modular boilers 	<ul style="list-style-type: none"> • Chiller Replacements • Commercial Refrigeration • Cooling Towers • Thermal Energy Storage Systems • Tower-free Cooling • Gas Fire Centrifugal Chillers • Reclaim A.C. Heat Rejection 	<ul style="list-style-type: none"> • Replacement of Air Handlers • Heat Recovery Systems • Variable Frequency Drives • Demand Control Ventilation • Variable Air Valve Systems • Exhaust Fans • Fan Coils 	<ul style="list-style-type: none"> • Pneumatic Controls • Direct Digital Controls • Facility Management Systems • Multi-System Integrations
Energy Services	Renewable Energy	Water Management Systems	Lighting Systems
<ul style="list-style-type: none"> • Lifecycle Cost Analysis • Operations and Mtc • Audit and Design • Project Management • Construction Mgt • Systems Installation • Commissioning • Training • Utility Rate Negotiation • Energy Guarantees • Energy Metering 	<ul style="list-style-type: none"> • Photovoltaic • Geothermal • Cogeneration • Biomass • Wind Turbines 	<ul style="list-style-type: none"> • Retrofits of all types of Water Fixtures • Water Control Systems • Domestic Water / Waste Heat Recovery • Automatic Water Systems 	<ul style="list-style-type: none"> • Occupancy Sensors • Traffic Light Retrofits • Street Light Retrofits • LED Retrofits • Lighting Controls • Daylight Harvesting
Municipal Systems		Other	
<ul style="list-style-type: none"> • Waste Water / Sewage • Water Recovery Projects • Traffic Lighting Systems • Street Lighting Systems • Landfill Gas Projects • Emergency Services • Communications/Data Sharing Systems 		<ul style="list-style-type: none"> • Green Roofing • Thin Film Solar Roofing • Kiosk Creation and Management • Turbine Generators • Central Heating & Cooling Plants • Emergency Generators 	

Apollo often utilized sub-consultants that have a deep knowledge of the client’s facilities. For specialized applications, Apollo typically works with industry leaders.

3. The ESCO’s experience with measurement and verification (M&V) processes. The ESCO should describe its familiarity with M & V protocols and when each is most appropriately applied.

ASG is familiar with the FEMP M&V Guidelines, ASHRAE Guideline 14, and the IPMVP. We typically develop our M&V plans with the IPMVP as the framework; it is the current industry standard whereas FEMP is actually an application of the IPMVP to federal energy projects and



ASHRAE Guideline 14 is more focused on the actual process of obtaining measurements. Our familiarity with the IPMVP options and a discussion of their application is as follows:

IPMVP Option A – Retrofit Isolation: Key Parameter Measurement

IPMVP Option A is the simplest, and lowest cost, IPMVP option and is appropriate when the measurement of a single variable, before and after a retrofit, provides the client with both an acceptable level of certainty that the savings are being achieved and at an acceptable cost for performing the measurements.

It must be the ESCO's responsibility to understand the client's requirements, expectations and need for M&V and educate and inform the client in an unbiased way relative to the pro's and con's (accuracy, risk, cost, frequency and duration, etc.) of the M&V option by individual facility improvement measure or "FIM" and or by FIM bundle.

IPMVP Option A is possible when a key parameter can be easily isolated for the purpose of performing measurements. For example, with a light fixture lamp and ballast retrofit, where the fixture Wattage is easily measurable and the operating hours and diversity can be estimated based information about the facility and its occupants.



With the use of this option the client agrees that non-measured variables in the analysis are stipulated/estimated without measurement. With the use of this option the client accepts some uncertainty in the savings (risk) associated with the non-measured variables. However, the client saves money by requiring less metering and measurements.

The frequency and duration of an M&V option must be considered as well as how it is suited to the FIM's relative to risk and accuracy. The client must decide if the balance of uncertainty and cost suits their goals for the overall project by considering the cost and savings of the retrofit relative to the overall project. Efficiency Valuation Organization, the organization that maintains the IPMVP, recommends that M&V costs be less than 10% of the annual savings and notes that M&V costs between 3% and 5% of annual savings are more common. If this option cannot be performed within these cost ranges the client should consider an alternative option.

IPMVP Option B – Retrofit Isolation: All Parameter Measurement

IPMVP Option B can be a more comprehensive, and higher cost, retrofit isolation method similar to Option A. It is appropriate when the measurement of all key parameters, before and after a retrofit, provides the client with both an acceptable level of certainty that the savings have been achieved and an acceptable cost for performing the measurements.

It must be the ESCO's responsibility to understand the clients requirements, expectations and need for M&V and educate and inform the client in an unbiased way relative to the pro's and con's (accuracy, risk, cost, frequency and duration, etc.) of the M&V option by individual FIM and or by FIM bundle.

IPMVP Option B is possible when all key parameters can be easily isolated for the purpose of performing measurements. With a light fixture lamp and ballast retrofit the use of Option B could require both fixture Wattage measurements as well as a sampling of operating hour measurements. The additional measurements add cost to the M&V plan because additional measurement tools, trips to the site, and data processing are required. In other instances such as a pump motor VFD retrofit (used to illustrate the application of Option B in IPMVP 2012 Volume 1) there may be only a single key parameter (in this case motor power) in which case Option A and Option B are effectively equivalent.

With the use of this option the client accepts minimum uncertainty in the savings (risk) associated with not measuring variables but retains some uncertainty (risk) due to the general nature of taking measurements (tool accuracy, statistical validity of samples, etc.). However, this reduction, though not total elimination, of risk increases the cost of the M&V effort.

The frequency and duration of an M&V option must be considered as well as how it is suited to the FIM's relative to risk and accuracy. The client must decide if the balance of uncertainty and cost suits their goals for the overall project by considering the cost and savings of the retrofit relative to the overall project. Efficiency Valuation Organization, the organization that maintains the IPMVP, recommends that M&V costs be less than 10% of the annual savings and notes that M&V costs between 3% and 5% of annual savings are more common. If this option cannot be performed within these cost ranges the client should consider an alternative option.

IPMVP Option C – Whole Facility

IPMVP Option C is a whole-facility savings verification method that is based on the use of metering at the facility level – as opposed to metering isolated retrofit systems within the

facility. The metered consumption during the reporting period is compared to the metered consumption during the baseline period, after making adjustments, to determine savings. The cost can be higher or lower than other IPMVP options depending on the complexity of the metering, of the facility operation, and of the reporting requirements. Often this option is best suited to FIMs where it is believed that savings can be identified (isolated and measured) via the metering process despite static variation. It is appropriate when the metered energy usage of the facility, overall, provides the client with both an acceptable level of certainty that the savings have been achieved and an acceptable cost for performing the measurements.

Often, this measure may simply involve utilization of the buildings existing utility meters and therefore the frequency of measurement is often consistent with the utility providers invoicing. When other measures require comparable frequency and duration, the cost of those measures can and often increase significantly. Client driven intangibles which may drive Option C when suited relative to FIM application is how this may influence the client's perceived risk relative to retiring the debt of the investments.



It must be the ESCO's responsibility to understand the clients requirements, expectations and need for M&V and educate and inform the client in an unbiased way relative to the pro's and con's (accuracy, risk, cost, frequency and duration, etc.) of the M&V option by individual FIM and or by FIM bundle.

IPMVP Option C is possible, although not always cost effective, nearly everywhere a facility receives metered utility service. A more simple application would be a single building with a single electric and natural gas meter. A more complicated application would be a complex of multiple buildings served by a master electrical meter and central heating plant with a single natural gas meter. Variations of building usage and changes to facility construction can further complicate the process.

With the use of this option the client foregoes the validation of performance of specific measures in lieu of achieving certainty that overall facility performance has been achieved. Sufficient performance and isolation at the meters must be feasible relative to the FIMs or the FIM bundle. The client retains some uncertainty (risk) due to the general nature of taking measurements (tool accuracy, validity of adjustments, etc.).

The frequency and duration of an M&V option must be considered as well as how it is suited to the FIM's relative to risk and accuracy. The client must decide if the balance of uncertainty and cost suits their goals for the overall project by considering the cost and savings of the overall project. Efficiency Valuation Organization, the organization that maintains the IPMVP, recommends that M&V costs be less than 10% of the annual savings and notes that M&V costs between 3% and 5% of annual savings are more common. If this option cannot be performed within these cost ranges the client should consider an alternative option.

IPMVP Option D – Calibrated Simulation

IPMVP Option D is a whole-facility savings verification method that is based on the use of calibrated energy models created using building energy simulation software. A model of the facility, or a portion of the facility, is created and calibrated to a tolerance agreed upon with the client and then used to simulate the performance of the facility after being upgraded to determine savings. The cost can be higher or lower than other IPMVP options depending on the expertise of the ESCOs energy modeling staff. It is appropriate when the simulated energy usage of the facility, overall, provides the client with both an acceptable level of certainty that



the savings have been achieved and an acceptable cost for performing the measurements.

It must be the ESCO's responsibility to understand the clients requirements, expectations and need for M&V and educate and inform the client in an unbiased way relative to the pro's and con's (accuracy, risk, cost, frequency and duration, etc.) of the M&V option by individual FIM and or by FIM bundle.

IPMVP Option D is possible at nearly all facilities. Models are more accurate when historical, preferably metered, baseline utility data exists but can be used per the IPVMP to simulate facilities / sub-facilities where no metered baseline utility data exists.

With the use of this option the client can validate the performance of specific measures as well as understand the impact to the facility overall. The client retains some uncertainty (risk) related to the accuracy (calibration) of the model and its inputs.

The frequency and duration of an M&V option must be considered as well as how it is suited to the FIM's relative to risk and accuracy. The client must decide if the balance of uncertainty and cost suits their goals for the overall project by considering the cost and savings of the overall

project. Efficiency Valuation Organization, the organization that maintains the IPMVP, recommends that M&V costs be less than 10% of the annual savings and notes that M&V costs between 3% and 5% of annual savings are more common. If this option cannot be performed within these cost ranges the client should consider an alternative option.

Stipulated Savings

Stipulating savings means to agree that savings will and have occurred without measurements. "Stipulated savings" is not an IPMVP option. This is the lowest cost way of addressing the performance of an upgrade because no measurement is performed.

Stipulating savings is appropriate when the client's requirements for more robust M&V are not required or views the savings as relatively small or when the cost of more accurate measurements is viewed by the client as too high relative to the savings.

Stipulating savings is possible for all measures. When stipulating savings, the client accepts



the uncertainty in the savings (and assumes all risk) associated with the non-measured variables including the outcome. However, the client saves money by requiring less metering and measurements.

The client must decide if the balance of uncertainty and cost suits their goals for the overall project by considering the cost and savings of the measure relative to the overall project. Efficiency Valuation Organization, the organization that maintains the IPMVP, recommends that M&V costs be less than 10% of the annual savings and notes that M&V costs between 3% and 5% of annual savings are more common. If other options cannot be performed within these cost ranges the client should consider stipulating the savings.

4. The ESCO's experience with designing, costing and managing the construction of heating system upgrades (including steam), chilled water system upgrades, heating and air conditioning systems, heat recovery, energy management and control systems, lighting and lighting control systems, water conservation, and other utility system improvements including renewable.



Apollo Solutions Group has sound design, estimating, project implementation and construction management expertise. We perform roughly \$150,000,000 in energy projects, full mechanical retrofits and new construction work each year with approximately 1,000 employees in Washington and Oregon. Facility types range from k-12 schools, higher education, arena and sports complexes, hospitals, correctional, data centers, complex laboratories, State, municipal and office buildings and multifamily residential. Apollo has the work force, the reputation, the experience, and the integrity to ensure projects are designed and constructed properly, on schedule, within budget, safely, and with minimal disruption to occupants.

The following is a small sample of projects completed in the last 10 years:

OWNER	PROJECT	LOCATION	VALUE
Puyallup School District	Emerald Ridge High School	Puyallup, WA	\$2,765,370
US Department of Energy	Plutonium Finishing Plant	Richland, WA	\$2,500,000
Blue Mountain Public Hospital	Blue Mountain Hospital	John Day, OR	\$2,487,561
Benton County	Benton County Justice Center	Kennewick, WA	\$2,577,373
Richland MOB Joint Venture	Richland Medical Office Building	Richland, WA	\$1,022,000
Umatilla County Emergency Management	Mobile Shelter Unit Systems	Umatilla County, OR	\$550,000
Whitman College	Science Building Phase II	Walla Walla, WA	\$1,073,000
Sacred Heart Medical Center	East Wing Upgrade	Spokane, WA	\$1,184,229
Kennewick School District	Kamiakin High School	Kennewick, WA	\$3,501,250





United States Department of Energy	W211 TFC / WTP Transfer Piping System	Hanford, WA	\$786,708
State of Washington	Central Washington University	Ellensburg, WA	\$1,099,269
Ellensburg School District	New Ellensburg High School	Ellensburg, WA	\$1,793,145
Pasco School District	New Road 84 Elementary School	Pasco, WA	\$1,257,000
United States Department of the Army	Umatilla Chemical Depot FRP Pipe Replacement Project	Umatilla, OR	\$4,900,000
Columbia Basin College	CBC Wise and T Building	Pasco, WA	\$3,739,969
National Institutes for Health	Rocky Mountain Lab	Hamilton, MT	\$4,991,151
Central Washington University	CWU student Union Building	Ellensburg, WA	\$7,720,043
Gilliam County	Gilliam Dry Blending Plant	Arlington, OR	\$679,000
Wahluke School District	Wahluke HS Bid PKG 18 and 19	Mattawa, WA	\$1,661,440
Richland High School	Richland High School Modernization	Richland, WA	\$6,214,490
State of WA. Dept. of General Admin.	Richland Health Science Center	Richland, WA	\$1,661,698
Columbia River Processing	Columbia River Process BP 12 - HVAC	Boardman, OR	\$1,027,474
Harney District	Harney District Hospital -	Burns, OR	\$2,339,559





Hospital	Replacement Facility		
Central Washington University	CWU Nicholson Pavilion IAQ / Asbestos Abatement & Renovation	Ellensburg, WA	\$1,267,086
Kadlec Medical Center	Kadlec Medical Center North Tower Expansion	Richland, WA	\$9,373,814
Richland School District	Jason Lee Elementary	Richland, WA	\$1,841,239
Department of Corrections	Coyote Ridge Corrections Center Expansion	Connell, WA	\$23,459,979
United States Department of Energy	Bechtel CM Lab HVAC	Richland, WA	\$5,246,397
Seattle Public Schools	Garfield High School Addition & Modernization	Seattle, WA	\$13,579,569
Tulalip Tribes of Washington	Tulalip Tribes Hotel & Convention Center	Tulalip, WA	\$22,101,739
Yahoo	Yahoo Data Center Phase 2 Construction	Quincy, WA	\$17,458,000
Pasco School District	Chiawana High School	Pasco, WA	\$8,880,755
US Department of Labor	Fort Simcoe Civilian Center	White Swan, WA	\$1,120,187
West Valley School District	West Valley High School	Yakima, WA	\$4,801,155
City of Richland	Richland Library Renovation	Richland, WA	\$653,597
T-Mobile	T-Mobile Polaris Data Center	East Wenatchee, WA	\$30,300,000



Intuit	Intuit Data Center	Quincy, WA	\$19,335,207
Othello School District	McFarland Middle School	Othello, WA	\$1,139,685
BIOPOL	BIOPOL Laboratories	Post Falls, ID	\$2,061,000

5. The ESCO’s Experience Securing Utility Incentives for its Clients.

Apollo Solutions Group team members have been securing incentives for clients for over 35 years. We view the obtaining of incentives and grants as significant added value for our clients and one of the great advantages of the ESPC process. We take a proactive approach to working with the utility or grant provider early in the project development to ensure all parties understand and agree to the project approach, scope and forecasted incentive amounts.

We have obtained grants and incentives amounting to millions of dollars from agencies such as the Bonneville Power Administration, State of Washington Office of Superintendent of Public Instruction (OSPI), State of Washington Department of Commerce, Bonneville Environmental Foundation, and local PUD’s to improve the economics of our past projects. For example, our team obtained \$890,000 from Bonneville Power Administration’s utility incentive program and \$2,000,000 in ARRA funds for Kadlec Regional Medical Center. We obtained a \$560,000 grant from OSPI for the Columbia School District, over \$1.2 million in energy smart design funds from BPA for St. Charles Medical Center and over \$70,000 grant from Washington State Department of Archaeology & Historic Preservation for Clark County for an infrastructure improvement project.



6. A description of the experienced key staff have, who are responsible for administration of any potential work awarded through this project. This is to include any sub-consultants routinely used for execution of performance contracting work. This is not to be the resumes or curriculum vitae (CVs) of personnel. Resumes or CVs can be attached as an appendix. Please indicate if the experience was obtained at another firm than this ESCO. Please identify the responsible, licensed P.E..

Apollo Solutions Group employs over 1,000 highly experienced finance, energy and operations analysts and engineers, procurement specialists, estimators, project managers, installers, and

on-going service providers, all in the Pacific Northwest. The following highlights the capabilities and experience of the key individuals that will work with the State and our mutual ESPC clients.

Alex Banks, LEED AP, Director, Portland, OR

With over 18 years of experience in the ESPC industry, Alex has a strong understanding of both the financial and technical aspects of projects. He has extensive experience in lifecycle cost analysis and modeling, structuring project financing and leveraging incentives, project management, and with LEED and sustainable principles. Alex holds a Bachelors - Mechanical Engineering and Masters - Business Administration. The first 14 years of Alex's experience was gained at a previous ESCO. Alex has had the pleasure of applying the many good lessons gained in those first 14 years, yet having the ability to improve on the Client's experience and the process while leading Apollo Solutions Group.

David Meals, CEM, Project Development Manager / Lead Project Development Engineer. Portland, OR

HVAC Technologies /HVAC Design; Boiler Efficiency Institute - Boiler Efficiency Improvement, Central Plant Efficiency Improvements, and Fundamentals of Engineering. David is a Certified Energy Manager (CEM) and Certified Cogeneration with the Association of Energy Engineers. The California Energy Commission, Bonneville Power Administration and the Oregon Office of Energy all recognize him as a Certified Energy Auditor within each of their organizations. Not surprising, with over 35 years of career experience, with roles ranging from mechanical design engineer to field energy engineer and energy manager, he has developed and designed over \$150,000,000 in utility conservation measures resulting in over \$200,000,000 in savings. All but the last 4 years of David's experience was gained at a previous ESCO and engineering design firms.





Anthony Sclafani, P.E., CEM, Manager of Project Development, Portland, OR

Anthony has over 8 years in the ESPC industry, overseeing the development phase of ESPC projects as a Project Development Engineer. His background in performance contracting includes the experience of having performed energy audits of more than 275 buildings totaling over 12,000,000 square feet. He has managed up to 25 team members on a single audit and has generated 3D energy models of over 150 buildings.

Barry Voigt, Project Development Engineer, Portland, OR

Barry is a Project Development Engineer and a LEED Accredited Professional. He is a proactive expeditor with over 25 years of experience in the HVAC industry of which 17 years employed as an energy engineer designing energy conservation performance contracting (ESPC) projects.

Barry is highly skilled at central plant and building systems evaluation, gap analysis and design development. He has been responsible for technical analysis, design development and final design for ESPC's in public facilities, schools, universities and hospitals throughout the United States.

David Bell, Senior Account Manager. Portland, OR

David Bell has more than 15 years' experience in the Public Sector marketplace, creating dynamic teams and overseeing the execution of large scale energy projects. He places a priority on developing complete scopes of work as early as possible, and delivering projects both on-time - and at, or under, budget. David is a proficient consultant during preliminary assessments and works to strengthen clients' cash-flow through design, engineering, and implementation. David holds a BA in Journalism from the University of Oregon.

Frank Gustafson, PE, Operations and Construction Manager, Spokane, WA

Frank Gustafson has 22 years of experience in the budgeting, scheduling, and management of the implementation of facility improvements in a wide range of facilities. Projects range from the management of complex central plant reconfiguration and tower addition in a healthcare facility, to retrofit of an occupied office building, to an expansion and retrofit of a biological





safety level 4 lab. Frank is a registered professional engineer and holds a bachelor of Civil Engineering.

Tanya Lamb, Marketing and Grants Manager, Portland, OR

Tanya Lamb began her career in the A/E/C industry in 2003 and has continually added to her industry knowledge by becoming involved in various organizations and task forces related to engineering, building and real estate development. Tanya holds a Bachelor of Arts from the University of Oregon and is a member of the National Association of Professional Women, and the Society for Marketing Professional Services. Tanya serves on the board of InvestED a not for profit helping students in need.

Nick Alderson, PE, CEM LEED AP, Project Development Engineer, Portland, OR

Nick uses his hands on experience to conduct comprehensive facility and campus audits. His HVAC system design and commissioning experience helps him develop and analyze practical facility improvement measures. His diverse experience includes commercial, industrial, education, health care, and government facilities. Nick is a licensed Professional Engineer, and a LEED Accredited Professional. He holds a B.S. in Mechanical Engineering from California Polytechnic State University, San Luis Obispo.

Mike Fuentes, CEM, LEED AP, Business Unit Manager, Spokane, WA

Michael is the Inland Northwest's Business Unit Manager. He is a certified energy manager and a LEED Accredited Professional. Michael has nearly 20 years of experience in energy conservation, mechanical system design, and Design/Build Project Development and Construction. Michael's area of expertise is in Central Steam and Chilled Water Plant design and energy conservation. Michael has extensive experience in project development and management of projects in Federal, State, County, and City Government Facilities, K-12 Schools, Higher Education Universities and Colleges, and Healthcare Facilities.



Michael Severns, Senior Account Executive, Spokane, WA Mike Severns understands the needs of healthcare owners and professionals—from CEOs and facilities managers to healthcare providers—as well as how hospitals set priorities for building and technology improvements. His 38 years of experience include 20 years as the director of facilities/construction, 10 years directing clinical engineering departments and 8 years as a Chief Technology Officer in healthcare and consulting for major hospitals in throughout the United States and Middle East. Mr. Severns has a strong background in managing facilities services and construction as well as a unique and strong background consulting for telecommunication and information systems, building automation, telehealth, telemedicine, and facilities planning.

Bill Watson, Project Manager, Spokane, WA

Bill is a senior project manager with over 28 years of commercial construction experience. For twenty years with his own construction company with the last five years in Project Management of Energy Savings projects. Bill is skilled at construction management processes, building systems, and problem solving. He is able to communicate and serve as client advocate, identifying and resolving complex and critical issues while guiding his team to accomplish multiple objectives in a safe manner. Bill has been responsible for cost development for construction projects and ESPC's in public facilities, schools, and Colleges in Oregon and Utah.

Joe Hojnacki, Account Executive, Spokane, WA

Joseph the newest member to the Apollo Solutions Group and is responsible for the overall client satisfaction on each design build and ESPC project in the Inland Northwest Office. His 12 years of experience as an Account Executive in the HVAC Industry allows him the ability to assist the client with the understanding of financial, technical, and industry specific requirements needed for a successful ESCP project. Drawing from his 22 years of leadership experience as a US Army Officer, Joseph helps manage the team of engineers, constructors, service providers and financiers to craft a tailor project around the client's desired improvement measures, financial structure and performance.



Dale Hollandsworth, Commercial Division Manager. Kennewick, WA

Dale's 20 years in the HVAC and energy industry have been focused on project management and quality assurance. He has extensive experience in projects ranging from office buildings to complex hospitals. He has a particularly strong understanding of mechanical systems and energy management systems. Dale holds a Technology Degree in Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration.

Trey Bland, Division Manager / Piping. Kennewick, WA

Journeyman Pipefitter. Trey has over 25 years of hands on and management experience in the mechanical and construction industry. Trey is also the Chairman of Plumbers and Steamfitters Local 598.

Dennis Hauth, LEED AP, Project Manager. Portland, OR

Bachelor of Arts - Management & Organizational Leadership. A LEED Accredited Professional with 13 years of experience in the commercial and industrial HVAC and energy industries.

Robert Lane, PE, Project Engineer. Kennewick, WA

Bachelor of Sciences - Civil Engineering. Robert is a Registered Professional Engineer in Washington. His specific experience is in long-term project planning, project scope, budget and timeframe, equipment specification and selection, equipment modification and installation, start-up supervision, and operator training.

Scott Hagensicker, Project Manager / Controls. Kennewick, WA

HVAC Certificate, Perry Technical Institute; Journeyman Pipe Fitter. Scott has a multitude of manufacturers' certifications. These include: Carrier Factory Centrifugal Chiller Training; CFC Refrigerant Universal Level Certificate; Trane Factory Helical Rotary Chiller Training; Carrier DDC Control Network Training; Evapco Cooling Tower Factory Trained/Certified. He has obtained US Department of State Top Secret Security Clearance.



SUBCONSULTANTS

While we have many in-house design capabilities, sub-consultants are a valuable resource and often an important member of the project team. Whether it is to fill a resource need, or to provide a specific area of technical expertise, in areas such as geothermal or bio-mass, leveraging the talents and resources of sub-consultant is most often a win for all parties involved.



ASG is proud of the large pool of sub-consultants that we have had the pleasure of working with over our 15 plus years performing ESPC projects specifically in the Northwest. A sample of these sub-consultants includes:

Inventrix Engineering

Energy conservation, as part of a comprehensive commitment to sustainability and sustainable design is at the core of Inventrix corporate value system. Additionally, our early involvement in sustainable design and LEED has caused Inventrix to be on the forefront of the identification, quantification, and follow-up confirmation of energy savings opportunities. This history gives Inventrix a wealth of knowledge to apply to new projects.

MW Consulting Engineers

MW Consulting Engineers is actively engaged in the arena of sustainability, participating in designs that provide energy efficient and environmentally friendly buildings. They are strong believers that the success of a sustainable design project relies heavily on the early involvement of the entire design and ownership team and early integration into the design process. The biggest impacts for sustainability are achieved for the least cost in the concept and schematic phases of the project.

While sustainability has come to the forefront of the construction industry fairly recently, MW has employed many sustainable strategies in the designs of their mechanical, electrical, lighting, security and engineered technology systems since the firm's inception.

URS

URS is a full-service, fully integrated design, engineering, construction, and technical services organization with the capabilities to support every stage of the project life cycle. URS offers a wide array of energy management consulting services including supply side management, integrated resource planning, demand side management, LEED energy modeling, and energy program management and implementation. URS also provides professional services in the areas of design-engineering support and facilities engineering, as well as a broad offering of sustainability services, including sustainable building and energy system design, LEED administration, and greenhouse gas consulting.



Glumac Consulting Engineers

Glumac is a full service consulting engineering firm specializing in cost effective, sustainable design of commercial, institutional, healthcare, and advanced technology facilities worldwide. With eight offices located in the Western United States, they are well positioned to serve our Clients. Although their focus is mechanical, electrical and plumbing (MEP) consulting engineering services, they also offer extensive sustainable design expertise, lighting design, technology integration, and building commissioning services that complement and enhance their core capabilities.

Interface Engineers

Interface Engineering provides multi-disciplinary MEP engineering services from four offices on the West Coast. With over 180 professional and technical associates, they approach each project with an eye towards integrated design, augmenting their core services with expertise in fire/life safety, lighting design, building technologies, energy consulting, and commissioning.

Ankrom Moisan Architects

The mission of Ankrom Moisan is quite simple: help their clients achieve success. For Ankrom, this includes making a strong commitment to sustainable design and energy efficiency. Ankrom currently have 21 projects that are LEED certified or registered, including Independence Station, which is tracking to be the highest LEED platinum project in the country. Ankrom understands what it takes to create effective, productive projects from both the public and private sector perspective.

7. A description of the ESCO's familiarity with EPA's Energy Star Portfolio Manager and other benchmarking tools.

Portfolio Manager was created and is managed by the EPA under the Energy Star program.

The program is located on the web as a interactive tool and data base, which allows one to enter, track and assess energy and water consumption in various types of buildings. Secure identification user and password assignment is established for users to access accounts and utilize the tool. This tool can be used to identify and manage consumption, and it can be utilized to rate the energy performance of the building's (pre and post). The tool estimates and provides a wealth of energy performance benchmarks by building type relative to location and type, providing ratings such as energy utilization index (EUI) and Energy Star scoring criteria. The tool can also estimate your carbon footprint.

All ASG development engineers have access and experience with Portfolio Manager and utilize this tool in a variety of ways in which support's their tasks and the process. Presently we are managing and tracking two accounts within our portfolio of M&V projects which we hope to gain these accounts and our customers through the use of this tool Energy Star recognition.

8. A discussion of problems experienced on projects and the remedy for those problems.

As is true with most complex projects there will be "issues" that arise through implementation that were not considered or foreseen during these design process. The reasons they are not "considered" or foreseen can be numerous and range from information on how the client/client operates their systems to unforeseen conditions due to a lack of adequate as-built information and the ability to obtain a complete understanding of the current operating conditions of various mechanical systems.

For example, on a project that ASG is currently completing, it was discovered during the implementation of a water saving's measure that included the installation of low flow shower fixtures that the hot water mixing valves throughout the facilities were not functioning properly. With the higher flow rates seen prior to the implementation of the measure, the mixing valves were able to flow enough water to induce or "pull" hot water through the valve to meet the temperature conditions necessary. As this problem was becoming apparent, it was noted that the set-point of the domestic system was being or had apparently been increased in the past to

mitigate the issue. This was not noticed during the design as the facility in question had a fairly high turnover in employees and the history of the issue was lost.

Through investigations by the ASG operations team (Project manager and superintendant) we were able to identify the problem, propose a remedy, and through savings in other areas of the project implement the necessary repairs that not only allowed the objectives of the original measure to be observed (water savings) but also additional savings in natural gas consumption due to the proper operation of the hot water mixing systems throughout the facility.

9. What is the typical makeup of a project team with regards to local (WA, ID, OR) vs outside the region staffing.

All Apollo employees that make up these project teams reside directly in the Northwest states of either Washington, Idaho, or Oregon. Apollo is and has been headquartered in Kennewick, WA since our founding in 1981. We have offices in Spokane, Seattle, and Portland. Again, all Apollo staff is local.

The vast majority of sub consultants, subcontractors and vendors that will be part of a project team will also be local. There will upon occasion be the need to introduce team members that come from outside of the region. For example, a specialist in a particular water conservation solution or product may be a based from outside of the region.

Apollo is 100% NW owned. All company profits stay in the northwest and are shared with local charities, teams, organizations and Apollo staff.

MANAGEMENT APPROACH

10. The ESCO's organizational structure and management approach to the project. Clearly describe the roles and responsibilities of all ESCO staff who will be assigned to this project and of any sub-consultants included on the ESCO's team. For sub-consultants describe the ESCO's prior experience working with the sub-consultant.



Apollo Solutions Group is based in Southeastern Washington with branch locations in Seattle, Spokane, and Portland. We are a group dedicated



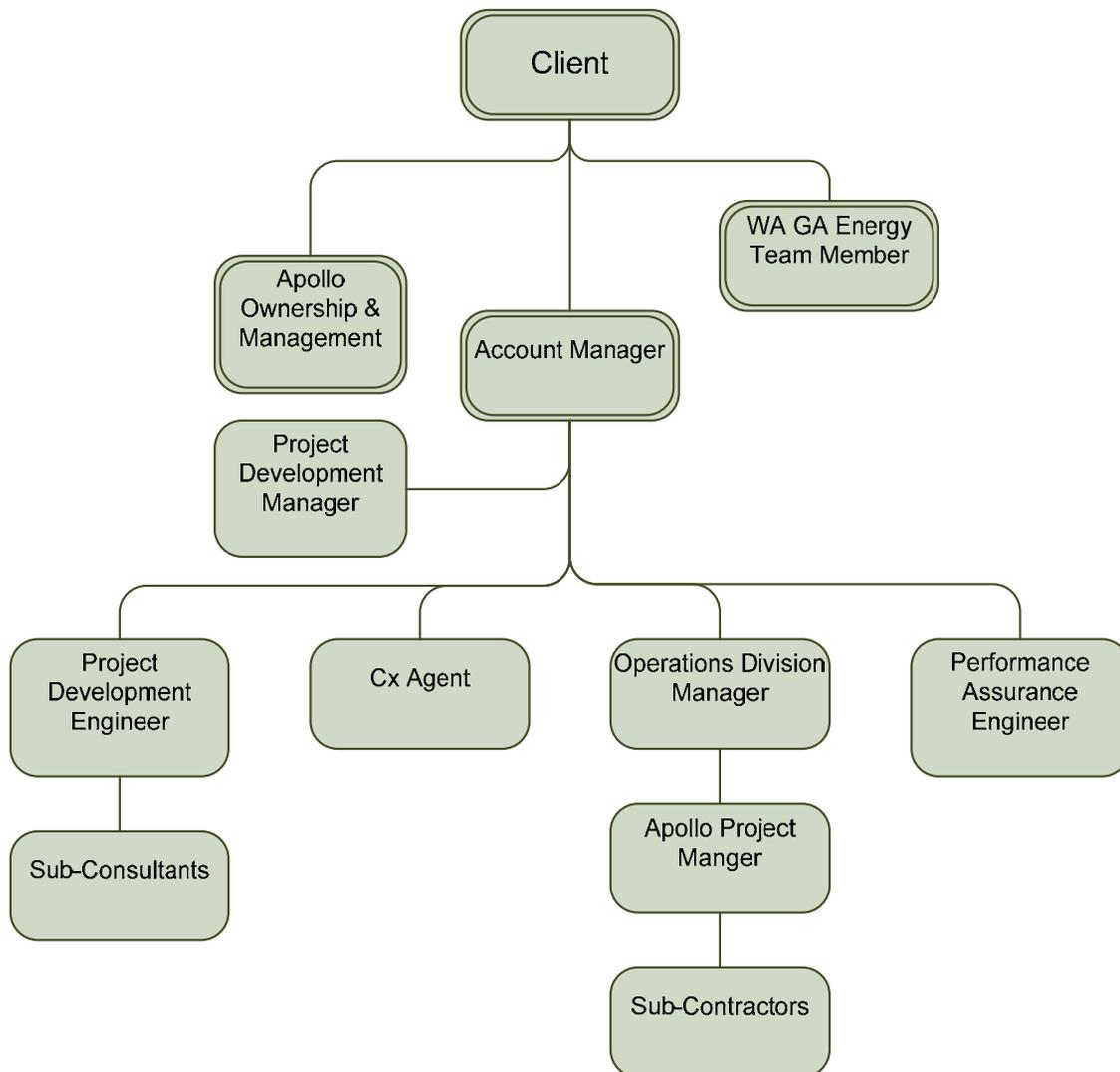
to our communities and long term Client successes and relationships. While we have approximately 1,000 employees, our ownership and management structure is simple, with a completely open door approach. Bruce Ratchford, Owner and CEO, founded Apollo in 1981 and an active participant in all aspects of the business today.

The organizational chart on the next page illustrates a typical project structure and staffing approach.





Project Organizational Structure



We strive to make the ESPC process streamlined, transparent, and efficient. The following table illustrates our simple yet comprehensive 5 step ESPC process and approach:

	Phase	Activities
1	Introduction and Discovery	We work closely with the Client at all levels to introduce the GA ESPC approach and process. Collaborate to identify the Client's challenges, desired results, key business drivers, and expectations. Perform preliminary benchmarking to efficiently determine potential project impact. Establish clear project goals and objectives.
2	Preliminary Facility Assessment	Interview building occupants and operators, conduct site and equipment surveys and building walkthroughs, collect sample logging and trending data, and review historical utility and operating cost to understand the current conditions. Develop preliminary project scope, budget, and savings. Align funding sources, incentives, rebates and grants. Perform preliminary financial analysis and develop the project proforma. Verify findings, potential results, and understandings with the Client and GA team.

3	Investment Grade Audit & Complete Project Development	<p>This phase simply expands on, and details out, the results of Phase 2. As part of our commitment to shielding our Client from risk and achieving the desired outcomes, we invest significant efforts to thoroughly define the project scope, savings, guaranteed maximum price and schedule. We perform detailed data logging, trending and equipment and operating procedure evaluation. We ensure the project scope is aligned with the facility master plan, future remodels and expansions. We solidify the financing structure and incentive amounts and timing. We develop detailed commissioning, client training, and measurement and verification plans. The scope, pricing, financial structure and schedule is verified with Client team. The result of this phase is a set of contract documents ready for complete implementation.</p>
4	Project Implementation	<p>Initiate the financing structure and implement the project scope with the utmost concern for the building occupants. Obtain incentives, rebates and grants for the Client. Implement the project scope. Conducts regularly scheduled Client updates and maintain a collaborative atmosphere and open communication. Systematically and thoroughly test and commission the improvement measures. Develop detailed O & M documentation and conduct</p>
5	Ongoing Support and Performance Assurance	<p>Implement the measurement and verification and ongoing Client training programs. Manage building performance and fine tune system operations. Report financial performance and reconcile financial guarantee. Obtain awards and recognition for the Client's and GA's achievements and educate the public about these efforts and results. Enjoy the renewed facility, lowered</p>

		lifecycle costs and continued savings.
--	--	--

Team Roles & Responsibilities (outside of support personnel)

- **Account Manager** - Responsible for the overall success of the project and Client relationship. Responsible for working with the Client, GA, and Apollo team to ensure financial and technical objectives are identified, understood, and realized. Responsible for quality assurance during all phases the project, from introduction of the concept to the Client, through measurement and verification. Consolidates project parameters such as cost, savings, incentives, and financing structure to perform complete project financial analysis and reports these results to the Client and GA. Performs contractual negotiations and directs staff to execute any applicable recognition or marketing strategies for the Client resulting from the project.
- **Project Development Manager (PDM)** - Works with Client’s representatives at the technical levels to understand and support their goals and needs. Audits facility conditions and operations, identifies improvement opportunities, develops project scope, performs energy savings calculations and develops appropriate M & V strategies. Provides cost and savings figures for use in complete project financial analysis. Provides oversight and review of contractual agreements such as project development agreements, performance guarantee contracts and the measurement and verification contracts. Directs, mentors, trains and supports project development engineers and performance assurance engineers relative to process, deliverables, outcome, risk, safety and quality. Supports and collaborates with project executive, project construction manager and designers from the time of the concept introduction to the Client, through design, installation, commissioning and measurement and verification.

- **Project Development Engineer (PDE)** - Works with Clients' representatives at the technical level to define operations, opportunity, need and goals. Manages risk relative to the process in the field and in the trenches with emphasis on quality outcome and deliverables. Works with the Client and project executive in the development of project target goals consistent with established need. Works with state agencies and or utilities in qualifying and leveraging agency or utility program support and defining agency or utility reporting requirements. Responsible for agency and or utility applications and reviews. Responsible for performing data collection, measurement, evaluation and energy analysis and cost analysis through all phases of the project. Documents results and supports findings and conclusions with adequate technical analysis and written narrative for the Client, project executive, agencies & utility incentive programs. Develops facility improvement measure conceptual design documentation and costing/estimating documents. Works with and supports the performance assurance engineer (PAE) and others in developing measurement and verification strategies and requirements. Responsible the draft the technical side of the performance guarantee. Supports and collaborates with Client, GA, project executive, project development manager, project construction manager and designers during design, installation, commissioning and measurement and verification.
- **Operations Division Manager** - Responsible for overseeing all costing, construction planning, procurement and subcontracting, construction scheduling, and project management activities.
- **Project Manager** - Responsible for oversight and implementation/construction of the facility improvement measures. Works with PDE towards an in depth understanding of facility, manufacturers, vendors and the facility improvement measures. Assists PDE in development of scope bid documentation and conducts solicitation for pricing and bidding from contractors and/or engineers. Responsible for reviewing and negotiating all design engineering support and or subcontractor bids and scopes of work relative to price, required outcome, performance and risk. Responsible for reporting and working with the Client, GA, project executive and project development engineer on all issues relative to scope development, scope documentation and contracts, costing, risk, quality and best life cycle



approach. Manages and coordinates with subcontractors and design engineers for scheduling, quality, performance, and installation. Responsible as the field liaison between the Client and all activity and subs. Conducts regular meetings and updates, processes requests, change-orders, invoicing and holds safety meetings. Responsible for final design and O&M documentation submission, start-up, closeout, as-built documents and acceptance. Works with PDE and PAE relative to commissioning and M&V processes. Manages financial performance of the project.

- **Design Engineer** – In the early design phase, such as during the investment grade audit phase, develop conceptual details consisting of plan views of existing and proposed equipment layout, equipment and or fixture schedules and simple diagrams both existing and proposed relative to electrical, piping or ducting schematic flow diagrams supported by detail scope narratives. The level of detail and process relative to the conceptual design during the development phase is one that is shaped by the expectation of required information which serves to define the application, work, services, equipment, cost and scope. We believe that adequate scope definition and documentation is critical for valid financial economics, accurate cost development and the contractual scope document. Other variables which may influence the conceptual design process and the level to which it is taken and the resources that are applied may be driven by perceived risks, unknown conditions, technology, quality and best pricing. We promote collaboration among the Client, GA, project executive, project development manager, project development engineer, project manager and commissioning agent as part of a design team. This group collaborates, coordinates and communicates the project vision and performance expectations with design engineer to achieve a well executed and documented design. Unlike some ESCOs, we believe that there is benefit where a neutral 3rd party design engineer (non ASG) who may ultimately represent the Client, can contractually represent everyone's needs and benefits and maintain collaboration and transparency throughout the project.



- **Commissioning Agent** - In addition to normal closeout and acceptance activities of a typical construction project, The project development manager and project development engineer, in concert with the project manager, Client representative and GA provide the required evaluation

for verification, validation and performance calibration as part of the closeout of implementation. Often, significant trending of critical attributes individually measured or assigned and setup within the DDC system where applicable shall provide support to this process. As the commissioning team, these individuals at the conclusion of any project should be more intimate than anyone about the design, operations, the systems, the facility and the expected performance. In certain instances, the final design engineer of record may be consulted to provide some support to the commissioning team during this process. This phase of the project is critical to the performance guarantee of any project. If the Client desires an independent 3rd party commissioning agent, we ask that this requirement be defined early in the process to allow us to accommodate this member and that this agent becomes part of the commissioning team during late phases of development and throughout design.

- **Performance Assurance Engineer (PAE)** - The PAE is responsible for measuring, tracking, collecting data and attributes for verification of program and FIM performance results where some form of a guarantee is implied and contracted. PAE is responsible to ensure a successful and credible verification of performance to the Client. The PAE is knowledgeable on all M&V options, IPMVP and industry M&V standards. The PAE works with the development team during the investment grade audit phase for development of the possible M&V options. Responsible for estimating M&V cost and developing scope for each FIM and or project. Supports and coordinates with the project team to conduct Client workshop on M&V. May participate and support PDE during preliminary and investment grade audit phases for utility meter/ bill collection and verification, trending, logging and measurements. PAE is responsible for baseline development including a practical command and understanding of this process including establishment of weather sensitivity with linear regression modeling where applicable. PAE is responsible for conducting reviews and training with the Client representatives regarding the developed baseline, the M&V process and the facility improvement measures. PAE is responsible for managing, tracking, measuring, validating and reporting both internally and externally for all improvement measures and/or the program as contracted both in frequency and duration. PAE is responsible for short fall notification, working with development team to define cause and developing a solution.

11. The ESCO's policies and procedures for managing and delivering its committed work products, including timely auditing and identifying energy efficiency projects.

At Apollo Solutions Group we pride ourselves on our focus on proper planning and staffing at all phases of a project. With roots in actual construction and implementation of improvements, we have the systems and processes in place to ensure schedules are established and managed and that project are staffed with the appropriate resources.

A project development and implementation schedule is then created and communicated to the client. With over 550 employees, offices in the Tri-Cities, Spokane, Seattle and Portland, we have the coverage and resources to execute our projects on schedule.

In addition to our many in-house engineering resources, we also maintain active relationships with subconsultants. This allows us to help meet schedule demands even when a large number of projects are running concurrently. When a subconsultant is leveraged, it is seamless to the client. We maintain complete control of the schedule and design directions.

This process starts with gaining an understanding of the client's desired timing and milestones and by communicating realistic time frames for completing the work we believe is necessary to ensure a successful project.

12. The ESCO's approach to marketing the DES Energy Program to potential Client agencies in conjunction with DES personnel.

The ASG team has experience with and values the expertise of the DES Energy Program team and understands the benefits to our mutual Clients. As was the case on the Clark County ESPC project, we leveraged the program benefits of providing the Client with a neutral team member to provide guidance and a program that streamlines the public procurement requirements. GA's effort to pre-qualify ESPC providers is of great value to Clients.



We understand that DES's track record of successful projects supports the ESPC approach and helps Clients more quickly become comfortable with the approach and realize the benefits can be far reaching. ASG is committed to involving DES team members at the beginning of conversations with any Client that can utilize the DES Energy Program. We immediately educate our public

Clients on the program and its benefits and refer them to the State provided information.

13. What is the minimum size project your firm would consider viable?

Apollo will consider all projects, regardless of how small. As with all sized projects, we take the time understand what the client is hoping to accomplish, what is realistic and balance the amount of investments by all parties. An example of a small ESPC project we recently developed is a small mechanical improvement for Clark County in southern Washington. The contract value was roughly \$140,000. Even on this small project, ASG was able to get the county a 61k grant.

14. The ESCO's approach to effectively communicate project information with DES agency.

Apollo's approach to effectively communicate with DES regarding project information comes down to a few simple strategies;

- A. Reach out to DES for assistance/participation with initial meetings and the IAA process.
- B. Coordinate the scheduling of milestones such as team meetings, walk throughs, development of the preliminary assessment, working with utilities for the purpose of determining incentives, IGA proposal / development, and all actions related to contract preparation.
- C. Leverage DES Program Managers as information resources.
- D. Coordinate on joint reviews and presentations with the owner.
- E. Conduct weekly or biweekly customer-DES project meetings during sales, prelim, development and construction
- F. Coordinate DES Review of critical documents such as estimates, proposals, reports, design and M&V process.
- G. Involves DES staff whenever possible to ensure that ASG process dovetails with DES process.

15. The ESCO's approach to project development from marketing to delivering the ESP.

Apollo's approach to project development is organized to discover, quantify, and address specific fiscal and facility needs. Ultimately, the goal of our approach is to develop a set of most-favored solutions yielding a combination of energy and operational savings, improved facility infrastructure and a fiscally responsible plan for preserving capital.

A summary of the actions and approach to project development from marketing to delivery of the energy services proposal is as follows:

- Collaborative & consultative at every step.
- Define who the customer and DES team is (financial and technical stakeholders), their roll, challenges, needs, wins & internal competitions.
- Define any compelling events and "What does the customer want? "
- Define the customer's acceptable resources for funding and the acceptance of O&M and Capital Preservation within their criteria for Proforma cash flow economics.
- Define the procurement decision process (who, when and what is required)
- Define the financial merits and return on investment threshold requirements of the customer's go-no go decision making criteria.
- Establish and schedule re-occurring project meetings and updates with DES and customer.
- Site walks, investigations, and interviews with customer and DES representative, deliberate on observations and discussion, agree to formulate and confirm target scoping that best aligns with the customer's needs and criterias.
- Verify, verify, verify. Confirm concurrence and acceptance by the customers and DES of the initial preliminary assessment outcome, concurrence and acceptance.
- DES review and acceptance of preliminary proposal within DES guidelines and requirements.
- DES review and acceptance of IGA proposal within DES guidelines and requirements.

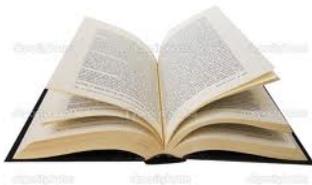


- Submission of IGA proposal and preliminary proposal to DES and customer.
- Execute IGA, establish a kickoff schedule with DES and customer and manage to a schedule, for the development of the energy services proposal (IGA).
- Verify, verify, verify, DES and customer review with timely management of the development outcome, concurrence and acceptance.
- Completion of a draft ESP for presentation to DES and customer.
- Finalize ESP and present to DES and customer.

16. The method for contracting the installation of the measures, maintaining cost competitive pricing, and whether the ESCO uses open book pricing.

We make all contracting steps and pricing simple and clear. We strive to bring our Clients the highest value at the lowest cost. To ensure this is accomplished, we invest the time to thoroughly develop the project, competitively bid all scopes and equipment and leverage all possible incentives. Our projects are all based on a guaranteed maximum price (GMP). Cost beyond that of the GMP are borne by Apollo Solutions Group.

Our design documents are sufficiently detailed and vetted as part of our commitment to the Client in managing risk and defining true cost. These documents are used for open solicitation of pricing from subcontractors. Our process incorporates competitive bidding and allows the



Client a choice of contractors and design engineers (internal or external) who ultimately become part of a design-build or design-assist process. ASG manages the design, procurement, construction, and commissioning to achieve the very best results for our Client(s).

31 years in the construction/ design industry has afforded us extensive experience providing open book pricing. We make our pricing transparent and easily understood by our clients. While we have developed templates for the reporting of cost information, we are flexible and willing to report information in any format requested by our Clients. We utilize Maxwell Systems™ construction accounting software to record and track all costs charged to a project. We summarize the reports by major categories such as materials, labor, equipment, and subcontractors. The summary is then followed by a complete Maxwell report showing each

and every penny charged to a project and by whom. The Maxwell report is followed by copies of any project related proposals and invoices.

While Apollo has the in-house capabilities to perform nearly every professional and construction service component of an ESPC project, we find it most efficient and advantageous to our clients to collaborate with other professional service and construction providers in certain areas. Apollo certainly has the experience and track record of performing mechanical work and we are willing to self perform that work if it is in the best interest of the agency. However, we expect that every scope of implementation and construction work will be competitively bid to a short list of contractors and vendors. That short list is developed in complete collaboration with our clients. With the exception of construction management, we solicit competitive proposals for all scopes of construction and equipment procurement.

17. The ESCO's procedures for timely closeout of construction projects, delivery of O &M manuals, commissioning reports and other pertinent paperwork to the DES energy program and the client agency.

The key to timely closeout of the construction project is to determine and track the specific items required for closeout at the beginning of the project. At ASG we utilize a standard project closeout checklist that is customized for each project depending on the project scope and contractual requirements. Items on this checklist include those identified on the DES ESCO Completion Checklist and includes the Energy Completion Notice. As-built documents are maintained and updated during the course of construction. Assembly of the Operation and Maintenance manuals begins at the completion of the submittal phase of the project once the key pieces of equipment are selected and ordered. The commissioning process dictates that the report cannot be completed until all systems have been installed, started and confirmed to be operational as dictated by the needs to the project. The preparation of this report however can begin a the completion of the design phase so that only the pertinent startup and balancing reports as well as completion of any punch list items that may be identified are required to complete the report.



18. The ESCO's procedures for timely submittal of required documentation to departments of Revenue, Employment Security and Labor and Industries.



ASG, through its parent company, Apollo Mechanical has been working on state and federal projects since 1981. We have created detailed procedures and processes for ensuring we comply with all state, and federal, regulations and requirements including the department of revenue, employment security and labor and industries. The process begins when a contract is received, specifically when the contract is received there is a “booking” process in which the specific requirements are identified such as prevailing wage requirements, is WSST applicable etc. A standardized check-list completed to make sure each of these requirements are identified and the applicable department with-in ASG is notified and the requirements are met, and completing in a timely manner. This process also ensures that these requirements are passed along to ASG’s subcontractors and consultants.

Throughout the course of the project, each department responsible for meeting specific requirements it is tasked with, ensuring that the timely reporting and submittal of documentation is completed. There are also various check systems in place to ensure these procedures are being followed. For example, with concern of certified payroll, as a monthly invoice is being prepared, the billing department works through an administrative assistant assigned to specifically track and maintain all certified payroll documentation requirements. The assistant confirms that both ASG as well as subcontractors are current in their reporting requirements. If they are not current, payments to those not current and held until the required documentation is in place.

In summary, these requirements have become part of Apollo’s standard operating procedures and are assigned to individuals whose specific job duties are to be knowledgeable and competent in ensuring these specific requirements are met.

19. The ESCO’s approach to mitigate risks associated with guaranteed cost, savings, and performance.

Risks associated with guaranteed costs, savings and performance are managed through creation and implementation of specific processes that are used to develop and implement a project. With regards to guaranteeing construction costs, ASG utilizes the specialized contractors who will perform the work to provide the estimates for that work based on detailed bid scope documents that provide the design parameters, conditions, and contractual requirements that must be included or accounted for in their pricing. These documents are





used as the basis for the contracts that will be issued to the winning bidders. It is typical for ASG to request multiple bids for a given scope of work to ensure that the pricing is valid, consistent and fair. If large discrepancies between multiple bids are discovered it “raises a flag” that requires an analysis, ensuring that the pricing we are using is appropriate. ASG typically enters into a fixed price contract with these subcontractors and suppliers based on these bids.

Risks associate with the guaranteed savings and performance are managed by continuous involvement from the development engineers throughout the implementation of the project. Additionally, the commissioning team is brought in during the development of the design to review and ensure that the design will comply with the requirements. This allows for an independent review to confirm the objectives will be met. The commissioning agent is then involved directly with the construction team to ensure that the systems installed meet these requirements. The final, and one of the most important items in ensuring the savings and performance objectives are met is appropriate communications with the client during the design phase and a comprehensive owner training program to ensure that the owner knows how to operate the installed systems appropriately. This training is typically not a onetime event. ASG has found that, especially on more complex systems, a follow up training session is implemented after the client has had to opportunity to work with the system first and gain some experience allowing for more detailed and specific questions on the system operations to be addressed.

The final step in meeting the guarantees is to develop a specific measurement and verification plan that is constant with the guarantee that is made. The objective of the measurement and verification plan should not only focus on documenting savings requirements, but also in discovery of any issues that may be impacting those savings.

20. The ESCO’s approach to sharing EPACT tax credits with client agencies.

We are willing to pass all or part of the value of an EPACT tax credit to a non-tax paying client by offsetting the ESCO fees on a project. Apollo, a tax paying business, is able to take the credit directly. We address the sharing of EPACT tax credits on a case by case basis, balancing the return from the credit with the cost of administering the credit.



21. The experience and approach to meeting the public works requirements for a apprenticeship training programs as directed by Chapter 39.04.320 RCW.

As a long standing union contractor rooted in the Northwest, and with a mission to give back to the community, Apollo has always provided learning and growth opportunity to up and coming workforce.

We understand the value and importance of RCW 39.04.320. We understand the requirements to include in the project specifications the appropriate percentage of work be performed by apprentices, based on the project timing, type, and dollar value.

22. How Minority and Women Owned Business (MWBE) enterprises will be utilized on the project.

As a Native American owned company, Apollo understands the importance of being included in the bid processes. Apollo strives to support local and regionally owned MWBE businesses by involving them in the project development and implementation phases of the project. We believe the success and diversity of our community (ies) are directly linked to the MWBE/WBE owned companies.

Apollo now operates as a Small Disadvantaged Business Concern (SDB) per new federal regulations which outlines the rights of an Indian-owned Economic Enterprise.

23. The ESCO's policies and procedures for recycling materials such as lamps, ballasts, fixtures, ceiling tiles, and, other recyclable materials.

Apollo Solutions Group believes in recycling all approved materials, including lighting waste as scoped for lighting projects. Within our developed process are standards, scope and specifications which address the cost and removal of recyclable materials, including issues of lighting waste (lamps and ballasts), such as handling, packing, transporting and recycling / incinerating all lamps and ballasts which are removed. We do not differentiate between known and suspected lighting waste components with regards to our recycle and disposal standard. These standards exceed state and EPA federal guidelines. ASG policy and documentation is that while we manage and execute much of this lighting waste contractually, the manifest is signed by the



Client as the originator and generator of the waste. A certificate is received from an EPA and state approved recycler for the recycling and disposal of the shipped lamp waste. All costs for this program are incorporated into our contract. ASG policy relative to known or discovered asbestos or leaking PCBs or surfaces exposed to same is that once discovered, the area is secured, contractors are stopped and are removed from the site and the owner is informed for their action. ASG does not take responsibility for abating and disposing these hazardous substances. Our contractual language and our process with the Client seeks to define and identify all known and suspected locations of hazardous waste during development.

24. How potential hazardous materials encountered in the installation of energy conservation measures will be managed; and whether the ESCO has been cited by the Washington Department of Ecology, Federal Environmental Protection Agency, or any other regulatory agency for inappropriate handling, transportation or disposal of hazardous materials.

Potential hazardous materials encountered in the installation of energy conservation measures are hired out to certified and licensed hazardous material subcontractors, specific to the hazard. ASG's policy relative to known or discovered asbestos or leaking PCBs or surfaces exposed to same is that once discovered, the area is secured, contractors are stopped and are removed from the site and the owner is informed for their action. ASG does not take responsibility for abating and disposing these hazardous substances. Our contractual language and our process with the Client seeks to define and identify all known and suspected locations of hazardous waste during development.

At the State's and/or Client's request, ASG will provide a copy of Apollo's Safety Manual. Of our safety manual's 42 chapters, Chapter 23 is specific to "Industrial Hygiene". In addition, Apollo uses Industrial Hygienists from Liberty Northwest to analyze product for Permissible Exposure Limits through Time Weighted Exposure sampling.

We have not been sited cited by the Washington Department of Ecology, Federal Environmental Protection Agency, or any other regulatory agency for inappropriate handling, transportation or disposal of hazardous materials.

COMPUTATION OF ENERGY BASELINE AND POST-INSTALLATION ENERGY USE

RANGE OF SERVICES

25. The methodology to compute energy and utility baselines and the methodology for calculating post installation savings, including the methodology when individual buildings may lack separate metering. Also, describe the ESCO’s equipment and personnel capabilities to measure energy usage, both pre and post retrofit.

Approximate Probable Component Energy Usage At Kadlec Regional Medical Center- Main Facility								
Component Use		Total			Total			Component Use as a % Of Total Energy
		Annual Electricity kwh/Yr	Electrical MMBTUs/Yr	Electrical % of Total	Annual Nat Gas Therms / Yr	Nat Gas MMBTUs/Yr	Gas % of Total	
Aprox Cooling	10%	1,468,677	5,013	10%	0	0	0%	4%
Aprox Cooling Auxiliaries	4%	576,968	1,969	4%	0	0	0%	2%
Aprox Cooling total	14%	2,045,645	6,982	14%	0	0	0%	6%
Aprox Space Heating	0%	0	0	0%	334,964	33,496	50%	28%
Aprox Heating Auxiliaries	2%	291,547	995	2%	0	0	0%	1%
HVAC Fans	32%	4,722,899	16,119	32%	0	0	0%	14%
Process- Sterilization & DHW	1%	198,600	678	1%	316,590	31,659	47%	27%
Lighting	23%	3,420,000	11,672	23%	0	0	0%	10%
Kitchen Process	3%	379,600	1,296	3%	18,003	1,800	3%	3%
Other Process & Misc Plug Loads	26%	3,928,386	13,408	26%	0	0	0%	11%
Total		14,986,677	51,150	100%	669,557	66,956	100%	100%

During the audit process, it is important to develop as much intimate knowledge of the buildings, their working systems, capacities, performance and efficiency as can be defined. The auditor will

use a combination of observation, instantaneous measurements, data logging and or trending to support their understanding and conclusions of existing conditions and opportunities for improvements. On-site operators’ logs may be used to support extended and operational attributes. DDC real time operational snap shots of system control and operation where applicable may be used to support existing program functionality. Design data, equipment nameplate data and or TAB records may support conclusions or attributes of building components, system capacity and or performance which may be incorporated into the analysis. A collection of this data supports the attributes, inputs, assumptions and conclusions of design and performance relative to establishing probable existing conditions and operations for systems and energy consumption. The majority of the time, savings calculation can be performed either through computer simulation or spreadsheet calculations and analysis. Having utilized computer simulation software since the late 1970’s for load calculations and energy modeling, we have in-depth knowledge of the modeling requirements, process, inputs and practices. We have hands on experience with such systems as DOE and eQuest and have managed modelers and the outcome where we chose to contract our modeling. Spreadsheet analysis, such as with lighting calculations or perhaps Modified Bin-hour Analysis are industry standard spreadsheet methodologies used to predict savings. In either case (simulation or spreadsheet), an existing baseline of consumption is established as the condition and



consumption which is modified to reflect the revised consumption post facility improvement measure. Data collected from the aforementioned sources are utilized in either of these methodologies to improve their characteristics and accuracy. Where practical, utility bills are often referenced for identify load shape, time of year consumption and total consumption and provide a reality check for both existing baselines (calibration) and predicted savings. These same historical utility records of consumption or calculated baselines and their algorithms may be used as the basis for the M&V process.

26. Describe potential scenarios where a modified baseline will be proposed.

A modified baseline, also known as an adjusted baseline, is part of the protocol for calculating savings with all four IPMVP options and is divided into two categories: routine adjustments and non-routing adjustments.

For a routine adjustment in an IPMVP Option C framework the baseline might be adjusted to normalize it to historical weather data.

For a non-routine adjustment in an IPMVP Option D framework the baseline might be adjusted to reflect the addition or demolition of conditioned space, major swings in occupancy / space usage in a commercial building, etc.

27. Describe the ESCO's utilization of M&V processes in the establishment of baseline energy use and the post installation energy use.

To establish baseline energy use, ASG prefers to use metered utility data with on-site measurements taken during the audit. The measurements are typically chosen in a way that balances audit cost with the desire to obtain as much data as possible. ASG would like provide the greatest amount of flexibility for our clients in collaborating in the development of the M&V plan – that is, having measurements that enable savings to be verified with Option A, B, C, D, or stipulated savings. The extent to which the data that enables this flexibility can be obtained is limited by the client's budget for the audit and their own schedule which may preclude long term data logging. The data that is obtained is used to establish an understanding of energy usage within each facility and used directly in the savings analysis – regardless of whether or not it becomes part of the final M&V plan.

To establish post installation energy use ASG can provide M&V services in accordance with IPMVP Option A, B, C, D, and stipulated savings. ASG has performed, for some clients, pre-retrofit and post-retrofit measurements to be used in IPMVP Option A, B, and D scenarios. For others, ASG has performed an IPMVP Option C comparison of utility data

SAVINGS AND EQUIPMENT PERFORMANCE GUARANTEES

28. The ESCO's project cost guarantee policies and procedures; including remedies when project costs exceed ESCO estimates.

We develop a Guaranteed Maximum Price (GMP) for all projects. We provide complete and easy to understand open book pricing to ensure the project costing remains transparent. We invest the time to thoroughly understand existing conditions, develop the project scope, and solicit firm and complete subcontractor and equipment price proposals. We leverage our extensive experience in writing requests for proposals and estimating complete, turn-key project.



We do all this to ensure there is never an Apollo initiated change order on a project. If the scope is not changed at the direction of the owner, and the project cost is greater than the GMP, we bare the additional cost to protect the owner.

If in the rare circumstances an unidentified existing condition, requirement driven by the local jurisdiction having authority, or an unforeseeable material cost escalation causes an increase in the project cost, we work proactively and diligently with all subcontractors and suppliers, and review all alternates to address the issue and shield the owner from cost increase. We communicate the extreme importance of accurate, complete, and reliable pricing to all the project team members, subcontractor, and venders to ensure everyone is clear on the objective; maintain the integrity of the project budget and protect the owner from any price changes.

29. The ESCO's energy savings guarantee policies and procedures, including remedies when actual savings are lower than the ESCO's estimates and guarantees, and the length of the savings guarantees.

Our guarantee policies and procedures adhere to the State contract and ESPC guidelines. The contract defines the measurement and verification (M&V) methodology (process) frequency and duration of the savings to be measured. We offer the Client choices relative to methodology, frequency and duration. We believe in informing the Client of the pros and cons

of the measurement and verification choices and their duration. We offer the following IPMVP standards; stipulated, measured specific performance guarantee (MSPG); utility bill comparison (UBC) and in some rare instances whole building simulation. Because often our Client requests that we attempt to leverage bundled projects which reach beyond those of simpler paybacks, we often present to the Client project financial proforma which is equal to no less than 20 years snap shot. Re-occurring program costs such as M&V within the financial proforma are normally shown as active until the debt or obligation is paid down.

A guarantee contract can be canceled at any time within the contract term. Our contract language requires some form of mutually agreed upon M&V to exist in order for a guarantee to be valid.

Our contract guarantees state that ASG will reimburse the Client for the difference when actual measured savings are less than guaranteed measured savings for any given period as contracted.

30. The ESCO's equipment performance guarantee policies and procedures, including remedies when performance of equipment is not met.

Beyond the energy savings performance guarantee (addressed in question #29 above), Apollo works with the Client to understand the criticality of equipment and systems. Together, with the Client, we craft an appropriate service and operations plan. If a Client feels they have the adequate staff and expertise to completely address the performance and maintenance of equipment, then we simply and clearly explain the requirements related to energy guarantee.

On the other hand, if a Client would like Apollo to assume full responsibility for the performance, run time, and maintenance costs of equipment, we craft the appropriate predictive, preventative and operational strategies to allow us to assume full responsibility for the complete performance of the equipment. We employ strategies such as remote monitoring, vibration analysis, and best practices and our knowledgeable service professionals.

Depending on the Client's desired structure of the agreement, remedies for a lack of performance could range from a time and material adjustment, repair or placement to a financial penalty and cost of the full corrective measures to be borne solely by



Apollo. We have the expertise and capabilities to assume whatever level of coverage the Client would like us to.

31. Provide information on the ESCO's warranty enforcement role and the ESCO's responsibility, if an, when there is an equipment failure beyond the warranty period when the client agency has financed the project and assumed ownership of the installed equipment.

We approach Clients with the goal of developing a long lasting, mutually beneficial partnership. Whether in warranty or not, we will work to address any issues related work or equipment related to a project we have performed for the owner. During the official equipment warrantee periods and beyond, we hold the equipment manufacturer accountable for the committed performance. We leverage our extensive industry relationships and experience to ensure all issues are addressed quickly and correctly.

Typically, we guarantee and warrantee all work for a period of one year. If the Client requests a longer warrantee period, we will develop an appropriate structure to accommodate that request. Beyond the warrantee period, we work in collaboration with the Client to correct any workmanship or equipment issues. In most cases, we do not assume responsibility for an equipment failure beyond the manufacturer's warrantee period. However, if a Client request or a project financing structure dictates the need, we will arrange to provide that extended coverage, for whatever term is requested. We are committed to long term success of the Client.

FINANCING ABILITY

32. The ESCO's project financing ability. Describe capability for carrying costs until completion of the installation of energy efficiency measures. Describe capability and willingness to fully finance project over a financing term including how the interest rate the ESCO would use is determined.

We leverage all possible incentive grant sources to help the project. We are a privately owned, very financially sound and stable company. We have operated on a cash only basis for



decades, ensuring our ability to meet our guarantee commitments and support our projects' projected financial performance. Our surety and bond provider is rated "A+XV" by A.M. Best Company.





If the client would like Apollo to finance the construction term, we are willing and capable of doing so. The terms of the financing will be based on the financing period, the current market rates, and client's fiscal health.

In addition, we have established relationships with 3rd party financing providers.



Alex Banks, LEED AP

Director
Apollo Solutions Group

Alex is responsible for the overall client satisfaction on each design build and ESPC project. He combines his financial, technical, and industry specific expertise to gain a clear understanding of the client's objectives, challenges and criteria and oversees his team of engineers, constructors, service providers and financiers to craft a tailor project around the client's desired improvement measures, financial structure and performance. Alex connects short term financial realities to long term lifecycle cost implication. He works closely with the client's financial leadership to facilitate the project financing. He oversees the discovery and award of grants, incentives and rebates. He works to gain recognition in the community and business industry for the organization and individuals who are taking action to improve their environmental, social, and financial performance.

Noteworthy Projects

St Luke's Rehabilitation Facility. \$7.7M ESPC Contract at 134,000 Sq ft facility located in Spokane WA. Scope includes new boilers, chiller, lighting upgrades, solar pv, occupancy sensors, air handlers, patient zone comfort control, interior and exterior lighting, DDC Retro-Cx and upgrade.

Lake Washington School District, Redmond, WA. 5.1M ESPC project that includes lighting replacements, boiler and chiller replacements and upgrades and control system improvements for suburban school district. Project includes 11 schools and one aquatic center.

Columbia School District, Burbank, WA. ESPC Project. Project lead for a \$2.1M solution which cash flows over 16 years. Central Plant Upgrade, HVAC upgrade, Lighting, Water Conservation, Solar Thermal and Solar PV.

PROJECT ASSIGNMENT

Director

EDUCATION

Bachelor of Science, Mechanical Engineering, Cal Poly CA

Masters of Business Administration (MBA), UOP CA

DBIA Certified

Recognized by ASHRAE journal for leadership on a LEED Platinum project with extensive onsite renewable energy

LEED accredited professional

Board member, Center for Innovative Schools

5 years with Apollo, 20 years in ESPC industry

Alex Banks resume continued:

Kadlec Regional Medical Center, Richland, WA ESPC contract for \$7M including controls optimization and upgrade, boiler replacement, heat recovery, low pressure steam, solar photovoltaic and small scale vertical axis wind turbine.

Clark County ESPC, Full ESPC services, 11 buildings, \$3.5M in improvements

Clackamas County Public Services Building, Lifecycle cost optimization based design build construction, complete mechanical, electrical and plumbing with 20 year guaranteed cost of utility consumption and operation costs, \$5.5M in improvements, LEED Silver

Clackamas County Development Services Building and Red Soils Campus Central Utility Plant, Lifecycle cost optimization based design build construction, complete mechanical, electrical and plumbing with 20 year guaranteed cost of utility consumption and operation costs, \$15M in improvements, LEED Silver

Independence Station, full project development, financing, and lifecycle cost analysis, \$14M, LEED Platinum

US Department of Veteran Affairs Medical Center, Full ESPC services, \$7M

Oregon Health Sciences University, Kohler Pavilion, energy management system planning and implementation, \$2M

Legacy Health System, Salmon Creek Hospital, energy management system planning and implementation, \$2M

Kaiser Permanente Walnut Creek Campus, energy management system planning, design and implementation, \$5.3M

San Mateo County Health Center, energy management system planning, design and implementation, \$6.7M

US Army, Fort Ord conversion to California State University, Monterey Bay, energy management system planning, design and implementation, \$5M

Presidio of San Francisco, energy management system planning, design and implementation

Anthony Sclafani, P.E., CEM

Project Development Engineer

Anthony oversees the development phase of ESPC projects as a Project Development Engineer. His background in performance contracting includes the experience of having performed energy audits of more than 275 buildings totaling over 12,000,000 square feet. He has managed up to 25 team members on a single audit and has generated 3D energy models of over 150 buildings.

Anthony's role in ESPC projects includes meeting with customers, utilities, contractors, and consultants to develop engineering solutions that are financially attractive and which solve problems for customers.

Anthony has published a number of journal articles on topics including renewable energy and energy modeling and has also been an energy modeling instructor for ASHRAE internationally.

Noteworthy Projects

Monroe Correctional Facility Monroe, WA – Twin Rivers Unit ESPC project for \$2 M including controls optimization and upgrade, lighting, HVAC upgrade, and Kitchen exhaust upgrades.

St Luke's Rehabilitation Facility. \$7.7M ESPC Contract at 134,000 Sq ft facility located in Spokane WA. Scope includes new boilers, chiller, lighting upgrades, solar pv, occupancy sensors, air handlers, patient zone comfort control, interior and exterior lighting, DDC Retro-Cx and upgrade.

Hawaii Public Safety Department, Honolulu, HI. Project lead for a \$25.8M ESPC project for three prisons. Improvement measures included chilled water plants, HVAC system retrofits, digital controls, lighting retrofits, water conservation retrofits, and electrical distribution

PROJECT ASSIGNMENT

Project Development Engineer

EDUCATION

B.S. Mechanical Engineering,
Milwaukie School of Engineering

M.S. Mechanical Engineering
San Diego State University

ACCOMPLISHMENTS

Developed over \$70,000,000 in contracted energy efficiency measures in the last five years with \$172,000,000 in energy savings throughout the term of the projects

ACTIVE REGISTRATION

Registered professional engineer;
2010 to current, California.
AEE Certified Energy Auditor

2 years with Apollo, 9 years in energy engineering industry

Anthony Sclafani resume continued

Hawaii Department of Accounting and General Services, Honolulu, HI. Project lead for a \$33.9M ESPC project for 10 commercial-type public facilities. Improvement measures included a 236 kW solar photovoltaic system (1,000 panels), chilled water plant upgrades, HVAC system retrofits, digital controls, lighting retrofits, and water conservation retrofits. Responsible for managing the audit, analysis, and M&V activities for 10 team members

Washoe County, Reno, NV. Project lead for a \$6.4M ESPC project for 34 commercial-type public facilities. Improvement measures included HVAC retrofits, digital controls, lighting retrofits, water conservation retrofits, and the installation of a solar photovoltaic system. Responsible for managing the audit and analysis activities for 6 team members.

Parker Unified School District, Parker, AZ. Project lead for a \$1.2M ESPC project for 10 K-12 facilities. Improvement measures included digital controls, lighting retrofits, water conservation retrofits, and the installation of a PC power management system. Responsible for managing the audit and analysis activities for 3 team members.

Churchill County School District, Fallon, NV. Project lead for a \$2.8M ESPC project for 12 K-12 facilities. Improvement measures included digital controls, lighting retrofits, water conservation retrofits, HVAC retrofits, building envelope improvements, and the installation of a PC power management system. Responsible for managing the audit and analysis activities for 2 team members.

Barry Voigt, CEM, LEED AP

Project Development Engineer
Apollo Solutions Group

Barry is a Project Development Engineer and a LEED Accredited Professional. He is a proactive expeditor with over 25 years of experience in the HVAC industry of which 17 years employed as an energy engineer designing energy conservation performance contracting (ESPC) projects.

Barry is highly skilled at central plant and building systems evaluation, gap analysis and design development. He has been responsible for technical analysis (including the utilization of computer modeling techniques, spread sheet development) design development and final design for ESPC's in public facilities, schools, universities and hospitals throughout the United States.

PROJECT ASSIGNMENT

Project Development Engineer

EDUCATION

HVAC Design, Tulsa County Vo-Tech

HVAC Design, Tulsa JAC 3 years

HVAC Design, Dunwoody Tech, Minneapolis

Oklahoma University Economics program 3 years

ACCOMPLISHMENTS Developed over \$90,000,000 in Efficiency Measures, Generating over \$110,000,000 in Savings

AEE Certified Energy Manager & Certified Lighting Efficiency Professional
1995

1 year with Apollo,
17 years in ESPC industry

Noteworthy Projects

Minneapolis Public Housing Authority / \$4.6 Million / Central Plant Upgrades / Heat recovery ESPC Project

Chicago Public Schools / \$16 Million / HVAC, Controls & Plumbing Upgrades / Lighting Upgrades ESPC Project

City of Riverside, CA. / \$14 Million / Multi Phase Multi-Departmental ESPC Project

City of Cathedral City, / CA. \$4.5 Million / Solar Generation / Traffic Signal LED Conversion and ESPC Project

Poway Unified School District Poway, CA. / \$2 Million / Co-Generation Project

Beverly Hills Unified School District Beverly Hills, CA. / \$7 Million / ESPC Project

Riverside Unified School District Riverside, CA. / \$4 Million / ESPC Project

County of San Bernardino, CA. Justice Center / \$4 Million / ESPC Project

City of Tulare, CA. / \$11.7 Million / Municipal Utility Solutions ESPC Project

Westside Union Elementary School District / \$12.8 Million / District wide ESPC Project and Concentrated Solar Power generation.

Bill Watson

Senior Project Manager
Apollo Solutions Group

Bill is a senior project manager with over 28 years of commercial construction experience. For twenty years with his own construction company with the last five years in Project Management of Energy Savings projects.

Skilled at construction management processes, building systems, Bill also excels at problem solving. He is able to communicate and serve as customer advocate, identifying and resolving complex and critical issues while guiding his team to accomplish multiple objectives in a safe manner.

Bill has been responsible for cost development for construction projects and ESPC's in public facilities, schools, and Colleges in Oregon and Utah.

Noteworthy Projects

St Luke's Rehabilitation Facility. \$7.7M ESPC Contract at 134,000 Sq ft facility located in Spokane WA. Scope includes new boilers, chiller, lighting upgrades, solar pv, occupancy sensors, air handlers, patient zone comfort control, interior and exterior lighting, DDC Retro-Cx and upgrade.

Utah Solar for Schools. Salt Lake City, UT Installation of 83 5kW photo voltaic systems on 83 schools. Project took place in 4 school districts and included interactive web reporting.

Ashland Springs Hotel Retrofit, Ashland, OR. A nine story concrete hotel built in 1925 upgraded from steam heat to four line hydronics and complete interior retrofit; new boilers, chiller and cooling tower.

PROJECT ASSIGNMENT

Project Manager

EDUCATION

Cost Awareness and Production Control

Construction Management/Design Build

Public Contract Code and Competitive Bidding

Construction Defect Claims

ACCOMPLISHMENTS;

Attention to detail provided savings to company of over \$200K in savings while also saving customer in excess of \$27,000

Managed bond project completion at school district with excess of 30% savings allowing for additional \$4 million in added scope.

Structured and accomplished application process for sewer annexation outside of an Urban Growth Boundary in less than one year.

David Meals, CEM

Project Development Manager

David is a Project Development Manager & Lead Project Development Engineer. He is a proactive expediter with over 35 years of experience in the HVAC industry of which 15 years was employed as a design engineer with design consulting firms.

David is highly skilled at central plant and building systems evaluation, gap analysis and design development. He has been responsible for technical analysis (including the utilization of computer modeling techniques, spread sheet development) design development and final design for ESPC's in public facilities, schools, universities and hospitals throughout the US.

Noteworthy Projects

Columbia School District, Burbank, WA. ESPC Project. Project lead for a \$2.1M solution which cash flows over 16 years. Central Plant Upgrade, HVAC upgrade, Lighting, Water Conservation, Solar Thermal and Solar PV

Kadlec Regional Medical Center Richland, WA ESPC contract for \$7M including controls optimization and upgrade, boiler replacement, heat recovery, low pressure steam, solar photovoltaic and small scale vertical axis wind turbine.

Lake Washington School District Redmond, WA. \$5.1M ESPC project that includes lighting replacements, boiler and chiller replacements and upgrades and control system improvements for suburban school district. Project includes 11 schools and one aquatic center

PROJECT ASSIGNMENT

Development Manager

EDUCATION

HVAC Design, San Diego City College
2 years at OIT, WOS & Mesa

ACCOMPLISHMENTS

Developed over \$150,000,000 in Efficiency Measures, Generating over \$200,000,000 in Savings

Certified Energy Auditor - CA, OR, WA & BPA

AEE Certified Energy Manager & Cogeneration Professional since 1978

FEMP Award for "Alternative

Financing": Edith Green-Wendell Wyatt Federal Building

DBIA Certified

5 years with Apollo, 38 years in ESPC industry

David Bell

Business Development Manager
Apollo Solutions Group

David has more than 15 years' experience in the Public Sector marketplace, creating dynamic teams and overseeing the execution of large scale energy projects. He is a proven team builder known for establishing key partnerships in the world of energy services contracting. David works closely with clients and manages all team members, consultants, and contractors charged with development and timely construction.

David is a proficient consultant during preliminary assessments and works to strengthen clients' cash-flow through design, engineering, and implementation. He places a priority on developing complete scopes of work as early as possible, and delivering projects both on time and at, or under, budget.

Noteworthy Projects

St Luke's Rehabilitation Facility. \$7.7M ESPC Contract at 134,000 Sq ft facility located in Spokane WA. Scope includes new boilers, chiller, lighting upgrades, solar pv, occupancy sensors, air handlers, patient zone comfort control, interior and exterior lighting, DDC Retro-Cx and upgrade.

Lake Washington School District, Redmond, WA. 5.1M ESPC project that includes lighting replacements, boiler and chiller replacements and upgrades and control system improvements for suburban school district. Project includes 11 schools and one aquatic center.

Columbia School District, Burbank, WA. ESPC Project. Project lead for a \$2.1M solution which cash flows over 16 years. Central Plant Upgrade, HVAC upgrade, Lighting, Water Conservation, Solar Thermal and Solar PV.

Kadlec Regional Medical Center, Richland, WA ESPC contract for \$7M including controls optimization and upgrade, boiler replacement, heat recovery, low pressure steam, solar photovoltaic and small scale vertical axis wind turbine.

PROJECT ASSIGNMENT
Manages Field Sales

EDUCATION
Bachelor of Science, Journalism
University of Oregon

ACCOMPLISHMENTS

Collectively, David's projects have been responsible for creating substantial positive impacts on the environment equivalent to the removal of more than 5,500 automobiles from the roads, the planting of more than 10,700 acres of trees, and the removal of more than 49.5 million pounds of CO₂ from the air – all annually

15 Years' experience in Field Sales
3 years with Apollo

David Meals resume continued

GSA / Corp of Engineers - Portland - Edith Green Wendell Wyatt Fed High Rise- Super ESPC/UCMS (2002)

Lead energy engineer and project developer for various improvements for energy conservation in this mid rise (22 stories) federal office building in downtown Portland valued at over 6 million. Received an award from the US Dept of Energy for this project. One of the financing mechanisms for a portion of this project involved the Corp of Engineers UCMS financing.

DOD- FEMP – Bangor Naval Submarine Base – Super ESPC (1997-2001)

Lead energy engineer in conducting audits and developing various turn key projects for reduced energy and improved operations at this naval submarine base. One of the projects involved the development of EMCS-DDC expansion in highly secured weapon storage areas.

DOD- Puget Sound Naval Station- Boiler Monitoring (HEPPO- 1989)

Project development engineer for a turnkey EMCS and DDC project for the optimization of this central steam plant. Part of this project involved the instrumentation for continuous boiler efficiency monitoring remotely over 1500 miles away.

Corp of Engineers-Guam -Naval Public Works- EMCS Optimization & Expansion (1984)

Led a team of engineers for the evaluation of an Island Wide Military (Navy, Marines & Air force) EMCS Upgrade (replacement and expansion of obsolete system) serving over 174 base wide buildings on this tropical Island. A large part of the unique purpose of this contract was the quantification and qualification of EMCS control strategies justified through the evaluation of building loads and energy utilization in a humid climate utilizing whole building computer simulations and analysis. This occurred at a time when building simulation software technology was relatively new.

DOD - MCAS-Yuma, AZ- Facilities Energy Plan (ECIP/ETAP -1980s)

Lead energy engineer and project developer for various improvements for energy conservation at base wide facilities. One of the key outcomes of this evaluation was the identification of a base wide energy procurement contract which yielded greater than \$75,000 annual in fuel cost savings with the stroke of a pen.

DOD- San Diego, CA- NEEC - Facilities Energy Plan (ECIP/ETAP -1980s)

Lead energy engineer for various improvements for energy conservation at these naval electronic support facilities.

DOD- San Diego, CA- Coronado Naval Hospital (ECIP/ETAP -1980s)

Lead energy engineer for various energy conservation improvements at this naval hospital.

David Meals resume continued

DOD- San Diego, CA- San Diego Balboa Naval Hospital (ECIP/ETAP -1980's)
Lead energy engineer for various energy conservation improvements at this naval medical center.

DOD- San Diego, CA- Naval Amphibious Base- Facilities Energy Plan (ECIP/ETAP -1980's)
Lead energy engineer for various improvements for energy conservation at this naval facility including recommendations for the optimization of the base wide central high temperature hot water heating plant.

Corp of Engineers - DOD – March AFB- EMCS Design - EMCS Showcase (late 1970's)
In a day and age in which the Corp of Engineers took the leadership in driving the EMCS industry technologically through their Tri Service Specifications, this was one of several contracts in which I was involved with auditing and analytical skills and design for EMCS. This particular project was also a show case of EMCS DDC potential for federal military installations across the country and at that time technologically represented the state of the art in EMCS.

Corp of Engineers - DOD - McClellan AFB – EMCS Design - EMCS Showcase (late 1970's)
In a day and age in which the Corp of Engineers took the leadership in driving the EMCS industry technologically through their Tri Service Specifications, this was one of several contracts in which I was involved with auditing and analytical skills and design for EMCS. This particular project was also a show case of EMCS DDC potential for federal military installations across the country and at that time technologically represented the state of the art in EMCS.

DOD- MCAS-EI Toro, CA- EMCS Design (mid 1970's)
Contract for the installation of EMCS according to Corp of Engineer specifications, what was then identified as the industry standard (Tri Service Specifications) design guideline, by an EMCS contractor in the mid 70s. As lead development engineer was the primary engineer involved in the field analysis and development of construction documents for design at this base.

St Charles Medical Center Bend, Oregon (1994)
Account executive and lead energy engineer in the development of \$2.5 million dollar ESPC for this acute care medical facility which resulted in a \$600,000 incentive, the first hospital with an Energy Star certification, 1st Place- Health Care- Energy User News Annual Projects Awards, and a Regional ASHRAE Technology Award for heat recovery in a central cooling plant.

Frank Gustafson, P.E.

Operations Manager
Apollo Solutions Group

Frank brings a diverse background to the solutions group including detailed mechanical design and construction experience as well as senior level general contractor and construction management experience. Frank oversees Apollo's operations in the Spokane division including business development, oversight of in house construction labor and division operations and project management duties for projects all over the state of Washington and Oregon, most recently at Kadlec Regional Medical center in Richland, Washington and Lake Washington School District in the greater Seattle area. Frank is an expert at building design and construction teams, as well as development and tracking of project and division budgets.

Noteworthy Projects

St Luke's Rehabilitation Facility. \$7.7M ESPC Contract at 134,000 Sq ft facility located in Spokane WA. Scope includes new boilers, chiller, lighting upgrades, solar pv, occupancy sensors, air handlers, patient zone comfort control, interior and exterior lighting, DDC Retro-Cx and upgrade.

Kadlec Regional Medical Center Richland, WA, complete construction of tower addition, and ESPC contract for \$7M including controls optimization and upgrade, heat recovery, low pressure steam, solar photovoltaic and small scale vertical axis wind turbine.

Columbia School District, Burbank, WA. ESPC Project. Project lead for a \$2.1M solution which cash flows over 16 years. Central Plant Upgrade, HVAC upgrade, Lighting, Water Conservation, Solar Thermal and Solar PV.

Whitworth University, Spokane, WA. \$3.4M Biology and Science Building – MEP project manager for a 63,000-sq.-ft. proposed LEED silver-certified facility, includes state-of-the-art research and instructional laboratories, offices and administrative support spaces, and classrooms. The mechanical system include a complex air quality monitoring and heat recovery systems allowing the HVAC system to minimize the outside air requirements associated with the lab while maintaining indoor air quality requirements

PROJECT ASSIGNMENT
Operations Manager

EDUCATION
Bachelor of Science, Environmental
Engineering, Montana college of
Mineral and Science Technology

ACTIVE REGISTRATION
Registered Professional engineer in
Washington State since 1996.

5 years with Apollo, 20 years in
engineering and construction industry

Lance Mueller

Project Manager
Apollo Solutions Group

Lance is the Construction Project Manager for Apollo Solutions Group. Lance is involved with all stages of the development and construction stages of our projects so that seamless transitions occur.

The area of expertise where Lance's specialized skills are utilized are prison and healthcare facilities where detailed scheduling and planning is required to keep the building occupants satisfied while major retrofits are occurring in their central plants.

Lance continues to add to his knowledge in the construction industry by staying abreast of current issues related to building, development and project management. He is a certified fluid power specialist and is working on his LEED certification.

Noteworthy Projects

Monroe Correctional Facility Monroe, WA – Twin Rivers Unit ESPC project for \$2 M including controls optimization and upgrade, lighting, HVAC upgrade, and Kitchen exhaust upgrades.

Kadlec Regional Medical Center Richland, WA, ESPC contract for \$7M including controls optimization and upgrade, heat recovery, low pressure steam, solar photovoltaic and small scale vertical axis wind turbine.

Columbia School District, Burbank, WA. ESPC project for a \$2.1 M including a central plant upgrade, HVAC upgrade, lighting, and water conservation.

Hanford Vitrification Waste Treatment Plant, Hanford Nuclear Reservation,\$7M Installation of Ductwork in Analytical Laboratory

Coyote Ridge Correctional Facility, \$23M, new construction for 21 building site, Awarded Silver LEED status.

PROJECT ASSIGNMENT
Project Manager

EDUCATION

Masters of Business Administration,
Portland State University - 1994

Bachelors of Science in Mechanical
Engineering

Oregon State University - 1992

Certified Fluid Power Specialist –
1995

5 years with Apollo, 19 years in ESPC
industry

Michael Fuentes, CEM, LEED-AP
INW Business Unit Manager

Michael is the Inland Northwest's Business Unit Manager. He is a certified energy manager and a LEED Accredited Professional. Michael has nearly 20 years of experience in energy conservation, mechanical system design, and Design/Build Project Development and Construction.

Michael's area of expertise is in Central Steam and Chilled Water Plant design and energy conservation. Michael has also developed many energy conservation projects in which the entire energy inefficient HVAC system was replaced with an energy efficient HVAC system. Michael has extensive experience in project development and management of projects in Federal, State, County, and City Government Facilities, K-12 Schools, Higher Education Universities and Colleges, and Healthcare Facilities.

Noteworthy Projects

Department of Energy / Hanford Nuclear Reservation / \$35 Million / De-centralization of the Central Steam Plants in the 300, 200 East, and 200W Central Steam Plants - ESPC Project

Battelle Pacific Northwest Laboratories / \$4 Million / Central Chilled Water Plant Upgrades, HVAC and Controls Upgrades / Lighting Upgrades - ESPC Project

Eastern Washington University, Cheney, WA / \$20 Million / Multiple Phases of ESPC Project

Washington State University, Pullman, WA / \$4 Million in Lighting Retrofits

PROJECT ASSIGNMENT
INW Business Unit Manager

EDUCATION

Masters of Business Administration, Gonzaga University – 2001

Bachelors of Science in Mechanical Engineering Washington State University - 1993

Centrifugal Air Conditioning "C" School - 1987

U.S. Navy, NTC – San Diego, CA

Air Conditioning & Refrigeration "C" School - 1987

U.S. Navy, NTC – San Diego, CA
Engineman "A" School - 1984
U.S. Navy, NTC – Great Lakes, IL

ACCOMPLISHMENTS

Developed over \$250,000,000 in Energy Conservation Projects.

1 year with Apollo, 20 years in ESPC industry

Michael Fuentes resume continued

Avista Utilities, Spokane WA / \$20+ Million / Multi-Phased Campus HVAC and Lighting Upgrades of a Design/Build Energy Retrofit Projects

Kennewick School District, Kennewick, WA. / \$5.5 Million / Multiple Phases of an ESPC Project. Lighting, HVAC, and Controls System Replacements and Upgrades. Planning and development for additional phases of work

Richland School District, Richland, WA / \$1 Million / Multiple Energy Saving Projects

Pasco School District, Pasco, WA / \$1.6 Million / Multiple Phases of ESPC Project

Riverside School District, Chatteroy, WA / \$600,000 / ESPC Project

Naches Valley School District, Naches, WA / \$2.4 Million / Multiple Phases of ESPC Project

West Valley School District, Yakima, WA / \$2.2 Million / Multiple Phases of ESPC Project

Rosalia School District, Rosalia, WA / \$300K / Lighting System Retrofit

Walla Walla County, Walla Walla, WA / \$2.5 Million / HVAC Replacement of the County Courthouse, Historic Preservation Project.

East Valley School District, Spokane Valley, WA / \$1 Million / ESPC Project

Lourdes Medical Center, Pasco, WA / \$3 Million / Multiple Phases of Energy Retrofit Work

Walla Walla General Hospital, Walla Walla, WA / \$2.75 Million / ESPC Project

Dayton General Hospital, Dayton, WA / \$4.6 Million / ESPC Project

Lincoln Hospital, Davenport, WA / \$2.5 Million / ESPC Project

Michael Severns, FASHE

Senior Account Executive
Apollo Solutions Group

Mike Severns understands the needs of healthcare owners and professionals—from CEOs and facilities managers to healthcare providers—as well as how hospitals set priorities for building and technology improvements.

His 38 years of experience include 20 years as the director of facilities/construction, 10 years directing clinical engineering departments and eight years as a Chief Technology Officer in healthcare and consulting for major hospitals in throughout the United States and Middle East.

Mr. Severns has a strong background in managing facilities services and construction as well as a unique and strong background consulting for telecommunication and information systems, building automation, telehealth, telemedicine, and facilities planning.

Noteworthy Projects

St Luke's Rehabilitation Facility. \$7.7M ESPC Contract at 134,000 Sq ft facility located in Spokane WA. Scope includes new boilers, chiller, lighting upgrades, solar pv, occupancy sensors, air handlers, patient zone comfort control, interior and exterior lighting, DDC Retro-Cx and upgrade.

Telehealth Committee American Society for Healthcare Engineering—Chairman of the National Telehealth Committee, 1994-1998 and 2003. The purpose of the Telehealth Committee is to evaluate technology for future healthcare applications. ASHE/AHA, Chicago IL.

Electric Power Research Institute (EPRI) Healthcare Initiative- Advisory Board Member, 1999 to 2002. EPRI is a not-for-profit; member-funded organization formed 25 years ago to address science and technology solutions for the energy services industry. The Healthcare Initiative assists hospitals, long-term care facilities and other healthcare providers in developing cost-effective, energy-efficient technologies to enhance the quality of patient care.

PROJECT ASSIGNMENT

Account Executive

EDUCATION

Fellow, American Society for Healthcare Engineering.
2005-present

Business Administration
University of California Stanislaus
1983
Associates in Electronics
Engineering
Modesto Junior College, 1981

ACCOMPLISHMENTS:

American Society for Healthcare Engineering (ASHE) and American Hospital Association

American Hospital Association (AHA) National Board of Directors and Region nine representative
1993-1998

Nationally known speaker in nationwide healthcare circuits such as ASHE, AHA, Health Tech and HIMSS.

1 year with Apollo, 38 years in Healthcare industry

Nick Alderson P.E., LEED A.P.

Project Development Engineer

Nick's experience with a project begins with completing an energy audit of the facility. Nick then develops practical energy conservation measures and qualifies them financially for the customer. He looks into system modifications, alternative system types, optimal control strategies, and simple operation and maintenance changes.

Nick has been responsible for both calculating energy savings and estimating project costs.

Nick also works to utilize renewable technologies when feasible. As a LEED accredited professional, Nick is committed to savings and environmentally friendly practices and incorporates them into his engineering design.

PROJECT ASSIGNMENT
Project Development Engineer

EDUCATION
Bachelor of Science in Mechanical Engineering, California Polytechnic State University, San Luis Obispo CA

ACTIVE REGISTRATION

Registered Professional Engineer in Mechanical Engineering in the State of California since January 5, 2010.

ACCOMPLISHMENTS
LEED accredited professional

Industry seminars and workshops on best practices

3 years with Apollo, 6 years in energy engineering industry

Noteworthy Projects

St Luke's Rehabilitation Facility. \$7.7M ESPC Contract at 134,000 Sq ft facility located in Spokane WA. Scope includes new boilers, chiller, lighting upgrades, solar pv, occupancy sensors, air handlers, patient zone comfort control, interior and exterior lighting, DDC Retro-Cx and upgrade

Columbia School District, Burbank, WA. ESPC Project contract for \$2.1M solution which cash flows over 16 years. Central Plant Upgrade, HVAC upgrade, Lighting, Water Conservation, Solar Thermal and Solar PV.

Kadlec Regional Medical Center Richland, WA ESPC contract for \$7M including controls optimization and upgrade, boiler replacement, heat recovery, low pressure steam, solar photovoltaic and small scale vertical axis wind turbine.

Lake Washington School District, Redmond, WA. \$5.1M ESPC project that includes lighting replacements, boiler and chiller replacements and upgrades and control system improvements for suburban school district. Project includes 11 schools and one aquatic center

Tanya M. Lamb

Marketing and Grants Manager
Apollo Solutions Group

PROJECT ASSIGNMENT

Marketing & Grants Manager#

Tanya Lamb began her career in the A/E/C industry in 2003 and has continually added to her industry knowledge by becoming involved in various organizations and task forces related to engineering, building and real estate development. Tanya is enjoying the opportunity to work in the energy services consulting industry and is currently working on her LEED certification.

Previously, Tanya worked in marketing for companies such as The Council for Quality Growth, and Development Consultants Group in Atlanta, Georgia. Tanya brings knowledge of recruiting, marketing, web development communications, public relations, grant writing and research as well as strategic development to the team.

Tanya holds a Bachelor of Arts from the University of Oregon and is a member of the National Association of Professional Women, and the Society for Marketing Professional Services.

EDUCATION

Bachelor of Arts, University of Oregon

Member, Society of Marketing Professional Services

Member, Society of Professional Women

3 years with Apollo, 10 years in construction industry

Board Member, InvestED

Noteworthy Projects

St Luke's Rehabilitation Facility. \$7.7M ESPC Contract at 134,000 Sq ft facility located in Spokane WA. Scope includes new boilers, chiller, lighting upgrades, solar pv, occupancy sensors, air handlers, patient zone comfort control, interior and exterior lighting, DDC Retro-Cx and upgrade

Kadlec Regional Medical Center Richland, WA ESPC contract for \$7M including controls optimization and upgrade, boiler replacement, heat recovery, low pressure steam, solar photovoltaic and small scale vertical axis wind turbine.

Lake Washington School District Redmond, WA. 5.1M ESPC project that includes lighting replacements, boiler and chiller replacements and upgrades and control system improvements for suburban school district. Project includes 11 schools and one aquatic center.

Columbia School District, Burbank, WA. ESPC Project. Project lead for a \$2.1M solution which cash flows over 16 years. Central Plant Upgrade, HVAC upgrade, Lighting, Water Conservation, Solar Thermal and Solar PV.

ARCHITECT - ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION (*City and State*): Washington State Department of General Administration
Olympia, Washington
2. PUBLIC NOTICE DATE: Feb 22, 2013
3. SOLICITATION OR PROJECT NUMBER: 2013-133

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE: **Alex Banks, Director**
5. NAME OF FIRM: Apollo Solutions Group (Apollo Sheet Metal, Inc. DBA Apollo Solutions Group)
6. TELEPHONE NUMBER: office: 503-222-6343 cell: 503-720-5690
7. FAX NUMBER: 503-222-6343
8. E-MAIL ADDRESS: abanks@apollosm.com

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

-
- 9a. PRIME (CHECK HERE):
- 9a. JOINT-VENTURE PARTNER (CHECK HERE):
- 9a. SUBCONTRACTOR (CHECK HERE):
- 9a. FIRM NAME: Apollo Solutions Group (Apollo Sheet Metal, Inc. DBA Apollo Solutions Group)
- 9a. IF BRANCH OFFICE CHECK HERE:
- 10a. ADDRESS: 1201 West Columbia Drive, Kennewick, Washington 99336
- 11a. ROLE IN THIS CONTRACT: Prime
-
- 9b. PRIME (CHECK HERE):
- 9b. JOINT-VENTURE PARTNER (CHECK HERE):
- 9b. SUBCONTRACTOR (CHECK HERE):
- 9b. FIRM NAME: Apollo Solutions Group (Apollo Sheet Metal, Inc. DBA Apollo Solutions Group)
- 9b. IF BRANCH OFFICE CHECK HERE:
- 10b. ADDRESS: 26055 SW Canyon Creek Road Wilsonville, OR 97070
- 11b. ROLE IN THIS CONTRACT: Prime
-

9c. PRIME (CHECK HERE):

9c. JOINT-VENTURE PARTNER (CHECK HERE):

9c. SUBCONTRACTOR (CHECK HERE):

9c. FIRM NAME: Apollo Solutions Group (Apollo Sheet Metal, Inc. DBA Apollo Solutions Group)

9c. IF BRANCH OFFICE CHECK HERE:

10c. ADDRESS: 7826 North Market Street, Suite F, Spokane, Washington 99217

11c. ROLE IN THIS CONTRACT: Prime

9d. PRIME (CHECK HERE):

9d. JOINT-VENTURE PARTNER (CHECK HERE):

9d. SUBCONTRACTOR (CHECK HERE):

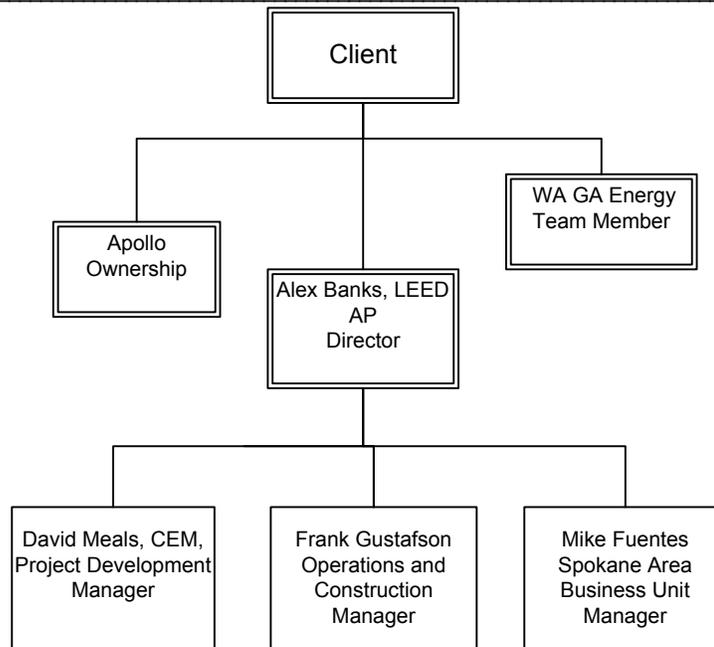
9d. FIRM NAME: Apollo Solutions Group (Apollo Sheet Metal, Inc. DBA Apollo Solutions Group)

9d. IF BRANCH OFFICE CHECK HERE:

10d. ADDRESS: 1725 Westlake Avenue North Seattle, Washington 98109

11d. ROLE IN THIS CONTRACT: Prime

D. ORGANIZATIONAL CHART OF PROPOSED TEAM (Attached; check here)



E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME: **Alex Banks, LEED AP**
13. ROLE IN THIS CONTRACT: Project Executive
- 14a. YEARS EXPERIENCE - TOTAL: 21 years
- 14b. YEARS EXPERIENCE - WITH CURRENT FIRM: 5 years
15. FIRM NAME AND LOCATION (*City and State*): Apollo Solutions Group , Portland, Oregon
16. EDUCATION (*DEGREE AND SPECIALIZATION*): BS Mechanical Engineering; Masters in Business Administration
17. CURRENT PROFESSIONAL REGISTRATION (*STATE AND DISCIPLINE*):
18. OTHER PROFESSIONAL QUALIFICATIONS (*Publications, Organizations, Training, Awards, etc.*): LEED Accredited Professional
-
- 19a(1) **Kadlec Regional Medical Center**, Richland, Washington
- 19a(2) YEAR COMPLETED - PROFESSIONAL SERVICES:
- 19a(2) YEAR COMPLETED - CONSTRUCTION:
- 19a(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$8M ESPC project with non-profit medical facility. Utilizing over \$800k in incentives from client's utility. Responsible for discovery of customer goals and challenges, and engineering team in the tailoring of the scope of work to fit within the financial criteria expressed by the Client, all financial modeling, contract negotiations and overall quality assurance.
- 19a(3) BRIEF DESCRIPTION - Check here if project performed with current firm: X
-
- 19b(1) **Project title, location Columbia School District, Burbank WA**
- 19b(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2013 (M&V)
- 19b(2) YEAR COMPLETED - CONSTRUCTION (*If applicable*): 2012
- 19b(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$1.8 million ESPC project at school district (included Elementary, Middle and High School)
- 19b(3) BRIEF DESCRIPTION - Check here if project performed with current firm: X
-
- 19b(1) **Clackamas County Public Services Building**, Oregon City, Oregon
- 19b(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2003
- 19b(2) YEAR COMPLETED - CONSTRUCTION (*If applicable*): 2003
- 19b(3) BRIEF DESCRIPTION AND SPECIFIC ROLE:
\$5.5M ESPC covering all energy consuming systems in a newly constructed LEED Silver facility with a 20 year guaranteed performance. Responsible for the lifecycle cost analysis, project development and contract negotiations. Contributed to the County's master plan development
- 19b(3) BRIEF DESCRIPTION - Check here if project performed with current firm:
-
- 19c(1) **Clackamas County Development Services Building and Campus Central Utility Plant**, Oregon City, Oregon
- 19c(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2008
- 19c(2) YEAR COMPLETED - CONSTRUCTION (*If applicable*): 2008
- 19c(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$15M ESPC covering all energy consuming systems in a newly constructed LEED Silver facility and CUP. Responsible for lifecycle cost analysis, project development, and contract negotiations.
- 19c(3) BRIEF DESCRIPTION - Check here if project performed with current firm:
-
- 19d(1) **Clark County Multi-Building ESPC**, Vancouver, Washington
- 19d(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2002
- 19d(2) YEAR COMPLETED - CONSTRUCTION: 2002
- 19d(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$3.7M Multi-building ESPC project utilizing the State of Washington's ESPC program. Responsible for discovery of customer goals and challenges, collaboration with State ESPC PM, and engineering team in the tailoring of

the scope of work to fit within the financial criteria expressed by the County, all financial modeling, contract negotiations and overall quality assurance.

19d(3) BRIEF DESCRIPTION - Check here if project performed with current firm:

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME: **David Meals, CEM**

13. ROLE IN THIS CONTRACT: Lead Project Development Engineer

14a. YEARS EXPERIENCE - TOTAL: 38 years

14b. YEARS EXPERIENCE - WITH CURRENT FIRM: 5 years

15. FIRM NAME AND LOCATION (City and State): Apollo Solutions Group, Portland, Oregon

16. EDUCATION (DEGREE AND SPECIALIZATION): San Diego City College - Refrigeration /HVAC Technologies /HVAC Design; Boiler Efficiency Institute - Boiler Efficiency Improvement, Central Plant Efficiency Improvements, Fundamentals of Engineering

17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE):

18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.): Certified Energy Manager (CEM) and Certified Cogeneration Professional both received from the Association of Energy Engineers; California Energy Commission, Bonneville Power Administration and the Oregon Office of Energy all recognize him as a Certified Energy Auditor

19a(1) **Kadlec Regional Medical Center**, Richland, Washington

19a(2) YEAR COMPLETED - PROFESSIONAL SERVICES:

19a(2) YEAR COMPLETED - CONSTRUCTION:

19a(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$8M ESPC project with non-profit medical facility. Lead Project Development Engineer, utilizing over \$800k in incentives from client's utility.

19a(3) BRIEF DESCRIPTION - Check here if project performed with current firm: X

19b(1) **Mount Hood Community College**, Gresham, Oregon.

19b(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2009

19b(2) YEAR COMPLETED - CONSTRUCTION (If applicable): 2009

19b(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: ESPC Project. Project lead for an \$11.2M solution which cash flows over 16 years. Central Plant Upgrade, HVAC upgrade, Lighting, Water Conservation, Solar Thermal and Solar PV.

19b(3) BRIEF DESCRIPTION - Check here if project performed with current firm:

19c(1) **Tigard Tualatin School District**, Tigard, Oregon

19c(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2006

19c(2) YEAR COMPLETED - CONSTRUCTION (If applicable): 2006

19c(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: Project lead for ESPC included lighting and control system improvements. School District's energy use decreased 11.7% in 4 years, while square footage had increased. \$2.9M total project construction value.

19c(3) BRIEF DESCRIPTION - Check here if project performed with current firm:

19d(1) **Southern Oregon University**, Ashland, Oregon

19d(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 1998

19d(2) YEAR COMPLETED - CONSTRUCTION (If applicable): 1998

19d(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: 750k square feet, 18 existing buildings and new central cooling plant. Some of the scope included: heat recovery and central heating plant optimization and upgrades.

19d(3) BRIEF DESCRIPTION - Check here if project performed with current firm:

19e(1) **Dept. OF Energy Hanford Phase 2 ESPC**, Washington

19e(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2009

19e(2) YEAR COMPLETED - CONSTRUCTION : 2009

19e(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$15 million; 1,600,000 square feet, 20 existing buildings, 32 modular buildings, 7 - Satellite heating plant's , site water treatment & distribution plants. Project lead

19e(3) BRIEF DESCRIPTION - Check here if project performed with current firm:

RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT

(Complete one Section E for each key person.)

12. NAME: **Michael H. Fuentes**

13. ROLE IN THIS CONTRACT: Business Unit Manager

14a. YEARS EXPERIENCE - TOTAL: 20 Years

14b. YEARS EXPERIENCE - WITH CURRENT FIRM: 1

19. FIRM NAME AND LOCATION (City and State): Apollo Solutions Group Spokane, WA

20. EDUCATION (DEGREE AND SPECIALIZATION): Bachelors in Science in Mechanical Engineering & Masters in Business Administration.

21. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE):

22. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.): Certified Energy Manager & LEED-AP

19a(1) **Project title, location: Lakeland Village – Phase I, Medical Lake, WA**

19a(2) YEAR COMPLETED - PROFESSIONAL SERVICES: In - Progress

19a(2) YEAR COMPLETED - CONSTRUCTION: Will be completed in 2013

19a(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$1,695,000 ESPC Phase I Project for a Non-Profit DSHS Medical Campus. Includes HVAC Improvements to the HAB and PAT Buildings, converting electrical cooking equipment to gas-fired cooking equipment, Installation of the Laundry Ozone system, and a campus wide lighting retrofit.

19a(3) BRIEF DESCRIPTION - Check here if project performed with current firm: X

19b(1) **Project title, location: Eastern Washington University – Phase I through Phase 6.1, Cheney, WA**

19b(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2012

19b(2) YEAR COMPLETED - CONSTRUCTION (If applicable): Last Phase is currently in progress

19b(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$20+ Million over all phases of work. Developed and Managed all phases of work up until I departed. Work included several HVAC System replacements across campus, improvements to the Central Steam Plant, Control System Retrofits, Campus Wide Metering Project, Lighting System Retrofits, Aquatics Building Dehumidification System and Building Revitalization, Cooling Tower installation, Plate and Frame Heat Exchanger for Free Cooling, Kitchen Electric to Gas Oven Retrofits and new Walk-in and Rech-in Reefer Retrofits at Tawanka Hall, and a Computer Room Air Conditioning Unit.

19b(3) BRIEF DESCRIPTION - Check here if project performed with current firm:

19c(1) **Project title, location: West Valley School District (Yakima), Yakima, WA**

19c(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2012

19c(2) YEAR COMPLETED - CONSTRUCTION (If applicable): 2012

19c(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$2.5 Million Dollars over 2 Phases of work. Was responsible for the development and management of the projects which included HVAC Fan Wall Retrofit and Upgrade at the Jr High School, Includes converting the constant volume system to a variable air volume system, and swapping out all pneumatically controlled terminal units with new VAV boxes with factory mounted digital controls, Controls upgrade and retrofit at West Valley Middle School.

19c(3) BRIEF DESCRIPTION - Check here if project performed with current firm:

19d(1) **Project title, location: Naches Valley School District Phases 1 through 3, Naches, WA**

19d(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2011

19d(2) YEAR COMPLETED - CONSTRUCTION: 2011

19d(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$2+ Million over three phases of work. Managed and developed all phases of work which included HVAC Upgrades and Retrofits to the Water Source Heat Pump System at the Middle School, Condensing Unit retrofit and controls upgrade at the high school, and a district wide lighting retrofit.

19d(3) BRIEF DESCRIPTION - Check here if project performed with current firm:

RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

14. NAME: **Frank Gustafson**

15. ROLE IN THIS CONTRACT: Operations Manager

14a. YEARS EXPERIENCE - TOTAL: 24 years

14b. YEARS EXPERIENCE - WITH CURRENT FIRM: 5

23. FIRM NAME AND LOCATION (City and State): Apollo Solutions Group, Spokane WA

24. EDUCATION (DEGREE AND SPECIALIZATION): Montana College of Mineral Science and Technology – BS Environmental Engineering,

25. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE): Washington State Professional Engineer, Civil

26. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, etc.):

19a(1) **Project title, location Kadlec Regional Medical Center, Richland WA**

19a(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2012

19a(2) YEAR COMPLETED - CONSTRUCTION: 2011

19a(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$8 million ESPC project at non-profit medical facility. Sr. Project Manager/Operations Manager

19a(3) BRIEF DESCRIPTION - Check here if project performed with current firm: X

19b(1) **Project title, location Columbia School District, Burbank WA**

19b(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2013 (M&V)

19b(2) YEAR COMPLETED - CONSTRUCTION (If applicable): 2012

19b(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: \$1.8 million ESPC project at school district (included Elementary, Middle and High School)

19b(3) BRIEF DESCRIPTION - Check here if project performed with current firm: X

19c(1) **Whitworth University Science Building**

19c(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2012

19c(2) YEAR COMPLETED - CONSTRUCTION (If applicable): 2012

19c(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: Construction of New \$23M Science Building, Sr. Project Manager

19c(3) BRIEF DESCRIPTION - Check here if project performed with current firm: X

19d(1) **Project title, location National Institute of Health, Rocky Mountain Lab, Integrated Research Facility, Hamilton MT**

19d(2) YEAR COMPLETED - PROFESSIONAL SERVICES: 2008

19d(2) YEAR COMPLETED - CONSTRUCTION: 2008

19d(3) BRIEF DESCRIPTION AND SPECIFIC ROLE: Construction of a NEW research facility including Biological Safety Level 4 laboratory space. MEP Project Manager

19d(3) BRIEF DESCRIPTION - Check here if project performed with current firm

RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(Complete one Section E for each key person.)

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified.
Complete one Section F for each project.)

D. EXAMPLE PROJECT KEY NUMBER: 1

E. TITLE AND LOCATION (City and State): **Kadlec Regional Medical Center, ESPC Contract Richland, Washington**

F. YEAR COMPLETED - PROFESSIONAL SERVICES: 2011

G. YEAR COMPLETED - CONSTRUCTION (If applicable): 2011

23a. PROJECT OWNER: Kadlec Health Systems

23b. POINT OF CONTACT NAME: Jason Rose, Director of Plant Operations

23c. POINT OF CONTACT TELEPHONE NUMBER: (509) 942-3087

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost): \$8M ESPC covering all energy consuming systems in an existing medical facility. Responsible for lifecycle cost analysis, project development, and contract negotiations.

25. FIRMS FROM SECTION INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
Apollo Mechanical	Kennewick, WA	Mechanical
NASH Lipsey Burch, LLC	Seattle, WA	Engineer

H. EXAMPLE PROJECT KEY NUMBER: 2

I. TITLE AND LOCATION (City and State): **Columbia School District, ESPC Contract Burbank, WA**

J. YEAR COMPLETED - PROFESSIONAL SERVICES: 2012

K. YEAR COMPLETED - CONSTRUCTION (If applicable): 2012

23a. PROJECT OWNER: Columbia School District

23b. POINT OF CONTACT NAME: Dr. Lou Gates

23c. POINT OF CONTACT TELEPHONE NUMBER: 509-547-2136

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost): \$ 1.7M Energy savings performance contract including new, high efficiency boilers, exterior building and parking lot lighting retrofit, interior lighting upgrades, PC Power management, DDC Retro-CX and upgrade, hot water piping, Natural Gas Procurement to Transport.

25. FIRMS FROM SECTION INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE
Apollo Mechanical	Kennewick, WA	Engineer, Mechanical

L. EXAMPLE PROJECT KEY NUMBER: 3

M. TITLE AND LOCATION (*City and State*): **Central Washington Hospital, Wenatchee, WA**

N. YEAR COMPLETED - PROFESSIONAL SERVICES: 2010

O. YEAR COMPLETED - CONSTRUCTION (*If applicable*): 2010

23a. PROJECT OWNER: Central Washington Hospital

23b. POINT OF CONTACT NAME: Michael Harder, Mortensen Construction

23c. POINT OF CONTACT TELEPHONE NUMBER: 425-895-9000

BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (*Include scope, size, and cost*): \$20.1 M- Complete new Central Utility Plant consisting of 600 Ton Centrifugal Chillers, 600 Ton Cooling Towers, & 18" welded chilled water mains; underground fuel storage system, new 6-story tower addition at 190,000 square feet. full control systems at the tower/CUP, as well as full 3D MEP coordination.

26. FIRMS FROM SECTION INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE
CDI Engineers	Lynwood, WA	Engineer
Mortensen Construction	Bellevue, WA	Prime

D. EXAMPLE PROJECT KEY NUMBER: 4

Se

E. TITLE AND LOCATION (*City and State*): **WSU Bio Products, Sciences and Engineering Lab, Richland, Washington**

F. YEAR COMPLETED - PROFESSIONAL SERVICES: 2010

G. YEAR COMPLETED - CONSTRUCTION (*If applicable*): 2011

23a. PROJECT OWNER: Washington State University

23b. POINT OF CONTACT NAME: Scott McGlockin

23c. POINT OF CONTACT TELEPHONE NUMBER: 509-535-3531

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (*Include scope, size, and cost*): \$4.8M Addition of a new bio-fuel research and development lab to an existing University. Full mechanical scope includes specialty laboratory gas and exhaust systems, HVAC, plumbing, and piping.

25. FIRMS FROM SECTION INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE
PAE Consulting Engineers	Portland, OR	Engineer
Bouten Construction	Spokane, WA	General

D. EXAMPLE PROJECT KEY NUMBER: 5

E. TITLE AND LOCATION (*City and State*): **Kadlec Regional Medical Center, North Tower Expansion Richland, WA**

F. YEAR COMPLETED - PROFESSIONAL SERVICES: 2009

G. YEAR COMPLETED - CONSTRUCTION (*If applicable*): 2010

23a. PROJECT OWNER: Kadlec Regional Medical Center

23b. POINT OF CONTACT NAME: Jason Rose

23c. POINT OF CONTACT TELEPHONE NUMBER: (509) 942-3087

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (*Include scope, size, and cost*): \$9.3M - Addition of a new tower wing to an existing medical center. Scope of work includes mechanical systems(HVAC, plumbing and piping including medical gas) to support new patient rooms, public areas, surgery suites, & MRI suites. This work is being conducted in a fully functioning hospital environment. The 71.8 Million dollar project is a six story building featuring a 36 bed outpatient observation unit, 10 new operating rooms, a 28 bed wing of private patient and two floors shelled in for future expansion. The building is also engineered to go as tall 10 stories as future needs dictate.

25. FIRMS FROM SECTION INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE
Bouten Construction	Seattle, WA	General
NASH Lipsey Burch, LLC	Seattle, WA	Engineer

EXAMPLE PROJECT KEY NUMBER: 6

E. TITLE AND LOCATION (*City and State*): **Clark County Multi-Building ESPC, Vancouver, Washington**

F. YEAR COMPLETED - PROFESSIONAL SERVICES: 2009

G. YEAR COMPLETED - CONSTRUCTION (*If applicable*): 2002

23a. PROJECT OWNER: Clark County

23b. POINT OF CONTACT NAME: Darrel Stump, Director of Facilities

23c. POINT OF CONTACT TELEPHONE NUMBER: 360-397-2238

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (*Include scope, size, and cost*): 10 Existing Buildings totaling 500,000+ sq ft.; New optimized heating and cooling central plant and new complete VAV HVAC AHU's and distribution for (1) 30k sq ft building; Electronic water flow valves throughout the County Jail; Web based campus automation & control system upgrade, expansion and optimization in (10) buildings; Lighting retrofits in (10) buildings

25. FIRMS FROM SECTION INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE
Cherry City Electric	Vancouver, Washington	Electrical Subcontractor

D. EXAMPLE PROJECT KEY NUMBER: 7

E. TITLE AND LOCATION (*City and State*): **Clackamas County Public Services Building, Oregon City, Oregon**

F. YEAR COMPLETED - PROFESSIONAL SERVICES: 2008

G. YEAR COMPLETED - CONSTRUCTION (*If applicable*): 2003

23a. PROJECT OWNER: Clackamas County

23b. POINT OF CONTACT NAME: Jeff Jorgensen

23c. POINT OF CONTACT TELEPHONE NUMBER: (503) 557-6414

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (*Include scope, size, and cost*): New 4 story, LEED Silver Building totaling 120,000 sq ft.; Project included high performance envelope with High R insulating values, low e and U double pane glass; Day lighting shelves with day lighting control of interior lighting; Lighting sweep; Low air temperature design for reduced equipment and ducting sizing; Variable volume air and water distribution; Hi efficiency all variable speed cooling plant; Hi efficiency condensing hot water heating; Web based automation and controls Piped for future service in 3 modes: stand alone, building heating and cooling plant off line (import from CUP) and building on line (building service and or export to central distribution system).

25. FIRMS FROM SECTION INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE
Cherry City Electric	Vancouver, Washington	Electrical Subcontractor

D. EXAMPLE PROJECT KEY NUMBER: 8

E. TITLE AND LOCATION (*City and State*): **US Federal Courthouse, Seattle, Washington**

F. YEAR COMPLETED - PROFESSIONAL SERVICES: 2008

G. YEAR COMPLETED - CONSTRUCTION (*If applicable*): 2003

23a. PROJECT OWNER: United States Federal Government

23b. POINT OF CONTACT NAME: D.J. Ortiz

23c. POINT OF CONTACT TELEPHONE NUMBER: (509) 383-0940

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (*Include scope, size, and cost*): New LEED Silver Federal Courthouse Hi-Rise Building totaling 500,000+sq ft.; Budget appropriations and Federal ESPC loan with approved incentives

25. FIRMS FROM SECTION INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE

D. EXAMPLE PROJECT KEY NUMBER: 9

E. TITLE AND LOCATION (*City and State*): **Tulalip Tribes Hotel & Convention Center, Tulalip, Washington**

F. YEAR COMPLETED - PROFESSIONAL SERVICES:

G. YEAR COMPLETED - CONSTRUCTION (*If applicable*): 2008

23a. PROJECT OWNER: Tulalip Tribes of Washington

23b. POINT OF CONTACT NAME: Mortenson General Contractors

23c. POINT OF CONTACT TELEPHONE NUMBER: 425-895-9000

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (*Include scope, size, and cost*): \$22million. Construction of a 12 story 4Star/4 Diamond Casino & Hotel to include expanded gaming area & conference rooms, new restaurants, pool spas, & spa center.

25. FIRMS FROM SECTION INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE

D. EXAMPLE PROJECT KEY NUMBER: 10

E. TITLE AND LOCATION (*City and State*): **Yahoo Data Center Phase 2 Construction, Quincy, Washington**

F. YEAR COMPLETED - PROFESSIONAL SERVICES:

G. YEAR COMPLETED - CONSTRUCTION (*If applicable*): 2008

23a. PROJECT OWNER: Yahoo!

23b. POINT OF CONTACT NAME: Jim Zuppan, DPR/Fortis Construction, a joint venture (General Contractors)

23c. POINT OF CONTACT TELEPHONE NUMBER: 415-748-0154

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (*Include scope, size, and cost*): New construction – full mechanical package valued at \$17 million

25. FIRMS FROM SECTION INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (<i>City and State</i>)	(3) ROLE

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number (see below)
A12	Automation; Controls; Instrumentation	5
B01	Barracks; Dormitories	5
C09	Cold Storage; Refrigeration and Fast Freeze	6
C10	Commercial Building (low rise); Shopping Centers	7
C11	Community Facilities	6
C13	Computer Facilities; Computer Services	8
E02	Educational Facilities; Classrooms	8
H04	Heating Ventilating Air Conditioning	7
H09	Hospital and Medical Facilities	7
H011	Housing (residential, multi-family; Apartments; Condominiums)	7
I01	Industrial Buildings; Manufacturing Plants	6
P08	Prisons and Correctional Facilities	8
R08	Research Facilities	8

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

- | | |
|---|---|
| 1. Less than \$100,000 | 6. \$2 million to less than \$5 million |
| 2. \$100,000 to less than \$250,000 | 7. \$5 million to less than \$10 million |
| 3. \$250,000 to less than \$500,000 | 8. \$10 million to less than \$25 million |
| 4. \$500,000 to less than \$1 million | 9. \$25 million to less than \$50 million |
| 5. \$1 million to less than \$2 million | 10. \$50 million or greater |

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown above)

- 11a. Federal Work: 8
- 11b. Non-Federal Work: 10
- 11c. Total Work: 10

12. AUTHORIZED REPRESENTATIVE. The foregoing is a statement of facts.

12a. SIGNATURE:



12b. DATE SIGNED: February 22, 2013

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number <i>(see below)</i>
C10	Commercial Building (low rise); Shopping Centers	6
C13	Computer Facilities; Computer Services	7
E02	Educational Facilities; Classrooms	6
H04	Heating Ventilating Air Conditioning	6
H09	Hospital and Medical Facilities	5
H011	Housing (residential, multi-family; Apartments; Condominiums)	5

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

- | | |
|---|---|
| 1. Less than \$100,000 | 6. \$2 million to less than \$5 million |
| 2. \$100,000 to less than \$250,000 | 7. \$5 million to less than \$10 million |
| 3. \$250,000 to less than \$500,00 0 | 8. \$10 million to less than \$25 million |
| 4. \$500,000 to less than \$1 million | 9. \$25 million to less than \$50 million |
| 5. \$1 million to less than \$2 million | 10. \$50 million or greater |

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown above)

- 11a. Federal Work: 0
- 11b. Non-Federal Work: 8
- 11c. Total Work: 8

12. AUTHORIZED REPRESENTATIVE. The foregoing is a statement of facts.

12a. SIGNATURE: 

12b. DATE SIGNED: February 22, 2013

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number <i>(see below)</i>
C10	Commercial Building (low rise); Shopping Centers	6
C11	Community Facilities	6
E02	Educational Facilities; Classrooms	6
H09	Hospital and Medical Facilities	6

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

- | | |
|---|---|
| 1. Less than \$100,000 | 6. \$2 million to less than \$5 million |
| 2. \$100,000 to less than \$250,000 | 7. \$5 million to less than \$10 million |
| 3. \$250,000 to less than \$500,000 | 8. \$10 million to less than \$25 million |
| 4. \$500,000 to less than \$1 million | 9. \$25 million to less than \$50 million |
| 5. \$1 million to less than \$2 million | 10. \$50 million or greater |

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown above)

- 11a. Federal Work: 0
- 11b. Non-Federal Work: 8
- 11c. Total Work: 8

12. AUTHORIZED REPRESENTATIVE. The foregoing is a statement of facts.

12a. SIGNATURE: 

12b. DATE SIGNED: February 22, 2013

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number <i>(see below)</i>
C10	Commercial Building (low rise); Shopping Centers	5
C13	Computer Facilities; Computer Services	5

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

- | | |
|---|---|
| 1. Less than \$100,000 | 6. \$2 million to less than \$5 million |
| 2. \$100,000 to less than \$250,000 | 7. \$5 million to less than \$10 million |
| 3. \$250,000 to less than \$500,00 | 8. \$10 million to less than \$25 million |
| 4. \$500,000 to less than \$1 million | 9. \$25 million to less than \$50 million |
| 5. \$1 million to less than \$2 million | 10. \$50 million or greater |

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown above)

- 11a. Federal Work: 0
- 11b. Non-Federal Work: 6
- 11c. Total Work: 6

12. AUTHORIZED REPRESENTATIVE. The foregoing is a statement of facts.

12a. SIGNATURE:



12b. DATE SIGNED: February 22, 2013