

Project Advisory Services

Technology is transforming industry and everyday life faster than organizations and regulations can keep pace. Projects are more complicated. In this exciting and complex world, we deliver the solutions you need to make sound decisions.

About APG

Aurora Professional Group delivers research and advice to organizations seeking to protect their strategic advantage and improve their capital efficiency. APG's strategic consultant network rapidly delivers top-tier services, without the leverage model. Clients receive genuine collaboration via tailored fee arrangements.

Why APG?

Our model provides exceptional advantages over traditional consulting firms:

- 1. We engage clients only when we have the exact experience required. Our insights and reports are unique for every job.
- Our overhead is much lower than our peers. In cost-driven projects we meet and exceed your requirements with fees for service. In schedule-driven projects we can provide the time and genuine collaboration often missing from our competitors.

Our Expertise

APG consultants are often experts in their fields. Collectively, we have several decades of experience across a variety of industries. Our areas of expertise span over sixty specialties in the following categories:

- Engineering, Piloting, & Project Advisory;
- Management Advisory;
- Regulatory Assessments and Advisory; and,
- Technology Research & Advisory.



Industries

PROJECTS

APG can advise or integrate with owner or contractor teams in commercial, industrial, and institutional projects. We are also here to assist with your claim development or defence.

ENERGY

Expect tailored solutions for the industrial, cleantech, power / transmission, and renewables industries. APG is adept at contextualizing cross-value chain opportunities to improve business models and exceed the requirements of regulatory frameworks.

PROFESSIONAL SERVICES

The professionals' professional – we understand the needs of our consulting and legal firm peers, and are positioned to improve operations or provide bandwidth and services as required.

Services

RESEARCH

APG offers research solutions based on a collaborative, phased framework to maximize relevance and insights. By utilizing data-driven analyses with unique graphics and visuals, APG provides a polished work-product tailored to your specific needs.

ADVISORY

Owners and contractors face challenges when it comes to technology evaluation, design, and project execution. APG provides solutions through the different phases of the project life-cycle to ensure that delivery is efficient and controls are operating effectively. The ultimate goal is the organization's successful delivery of their capital programme and protection against stakeholder and litigation issues.

SPECIALTY ASSIGNMENTS

APG can work within your organization. Workshops, facilitation, and cooperative development of internal systems, procedures, and initiatives are our specialty!

Project Advisory Services Financiers / Shareholders

ORGANIZATIONAL ASSESSMENTS

Embarking on a capital program is much more than securing funds and executing. A project's success is based on the people designated to execute it. If you've invested in a company with large capital expenditures, your confidence in the organization's people is paramount. The board must have the wherewithal to request adequate reporting and hold the executive accountable. The executive must have the experience to facilitate successful project delivery. And the organization must have adequate depth and structure to meet the needs of the contract strategy. APG will assess, audit, and monitor your portfolio company to protect your investment. Our focus is on governance, fair competition, organizational alignment, and project execution infrastructure. We will work with you to create the mechanisms and interfaces for reporting, interim audits, and mitigation planning.

PROJECT DELIVERY ASSESSMENTS

Succussful project delivery is dependant on the quality of front end planning. Ideally, your portfolio company has, and adheres to, a project delivery model and execution philosophies. Whether it is pre-sanction, in- progress, or in distress, APG will quickly provide you with the necessary insights required to protect your investment.

REGULATORY ASSESSMENTS

Your original investment criteria may have changed due to evolving legislation and a modified fiscal structure. Or, emerging industry regulations may have an impact on the risk basket of your porftolio company.

APG will help you understand the technical and commercial impacts arising from changing regulations. We are experts in key technical areas governed by legislative authorities: environment management, safety codes, and design standards. We will provide you independent assessments on the impact of changing regulations on your pro forma.

PROGRESS, MILESTONES, AND CASHFLOW ASSESSMENTS

Ironically, capital partners have a limited view into the reporting of capital projects. Internal score cards are much different from the project team, to the board, and to equity and debt holders. Your team should be able to translate, cut-through, and sniff out warning flags from project reporting. APG is your trusted advisor to independently assess project health. We assist you in developing your executive controls, surveillance plans, and reporting frameworks.

STAKEHOLDER REPRESENTATION

Sometimes reporting isn't enough. You need eyes and ears on the ground. Our consultants have decades of field and head- office experience and are comfortable representing the interests of capital partners.

Project Advisory Services Owners / Contractors

PROGRAM DESIGN AND ADVISORY

At APG, we are evangelical about front end planning, contracting strategies, and project philosophies. Project delivery is evolving at a rapid pace. "That's the way it's always been done" and "old school" mentalities are impediments to true productivity improvements. Projects are collaborative efforts only as strong as the weakest link. Each team member, contractor, and tool, needs to support your project vision and charter. We help improve your project delivery by assessing your project execution strategies, team structure, control methods, and software tools for gaps and appropriate scoping. Working with your team, we leverage our multi-industry experience to address shortcomings, de-risk your program, improve collaboration, and dramatically improve your project outcomes.

RISK MANAGEMENT

Risk management is much more than using a risk register. A true focus on risk management considers both operational and financial risks and begins before project sanction. Your governance philosophy and project charters likely speak to risk management, but is it getting the attention it deserves? With a properly functioning risk program, budget and schedule hazards are quantified early-on with hard mechanisms for mitigation plan triggers. APG will help you develop the maturity of your risk program so that it informs your contingency estimates with historical data, leaving as little as possible to chance.

MANAGEMENT OF CHANGE

Change management controls are often inadequately addressed at the contract and kickoff stage and become poorly administered during construction. Quickly, changes become a point of contention for the contract parties. These can blossom into concurrent changes, more complex trends that may have cumulative effects. APG will provide you with the procedures, tools, and analyses to help communicate, manage, and mitigate these effects. We ensure your management of change program suits your project delivery models. With the right mechanisms to mitigate and manage scope growth you can focus on contract administration transparency.

CONTROLS AND SOFTWARE ADVISORY

Project software tools have evolved at a rapid pace. Organizations can no longer rely on internal, custom solutions -- documentation has become digital, project parties have become integrated teams, and the data chain is global. If your tools impede the data chain and opportunities for collaboration, efficiency suffers - often at the expense of profit or return on capital. Unfortunately, there is no "one size fits all" solution across all industries. At APG, we continually evaluate the incumbent software platforms, as well as up-andcoming solutions. If you are ready to improve your systems, APG will guide you through the pro-curement process, ensuring that functionalities and workflows match your organization's needs and that the implementation process is as effi-cient as possible.

PRODUCTIVITY ASSESSMENTS

When running at peak efficiency, your head office, module yards, site, and contractors are in harmony. There will always be fires and issues to manage. Your personnel should be equipped to manage and track whatever comes at them, without disrupting the flow of material and information. This provides a clean delineation between scope and extra work. At APG, we have owner-side, contractor-side, field, modular yard, and shop experience. We have led successful initiatives that have dramatically improved tool time, contractor interfacing, and turnover efficiency. Think you are still leaving money on the table? We will find out where it is and get it back in your pocket.

REQUEST FOR EQUITABLE ADJUSTMENT

APG helps you settle disputes early on and avoid con-struction litigation. We use your project data to detail how and when your project was impacted, and to what extent. Using best practice analyses, we support you with visualizations, productions, and assessments that make your request compelling and effective.

DESIGN & EQUIPMENT ASSESSMENTS

APG prides itself in retaining expert level consultants across a variety of industries. We can answer your tough questions - is your FEED accurate enough for sanction? Are you unsure about your new plant processes? Is your HAZOP providing valuable and defensible outputs? Have you actually modularized as efficiently as possible? Are you meeting regulatory requirements?

Or are you trying to improve your design philosophy? We are happy to help with larger scale design improvements like equipment standardization, design de-risking and outsourcing, and design scope and quality management.

CASH FLOW ANALYSIS

If you're a contractor, cash flow is the lifeblood of your project and your company. If you are an owner, it is the key metric to inform you on project health. With properly set up budgets and project controls, your leadership team should be able to monitor cash flow on a weekly basis. If your cash flow analyses are fuzzy, you're inviting unwarranted risk onto your project. APG will help you set, monitor, and improve cash flow reporting to make sure you are running as efficient as possible.

PROJECT DOCUMENTATION

We firmly believe that the state of document control provides a diagnosis on the health of a project program. The evolution from hard copy project files to electronic document management has unfortunately resulted in organizational inefficiencies, broken workflows, and unwieldv software solutions. APG will quickly assess your documentation and provide you recommendations to address the biggest gaps. Our approach focusses on the key elements needed to demonstrate a contemporaneous project record that satisfies your contracts, procedures, and policies. The ultimate goal of your document management program is a "one source of truth". This positions you exceptional internal benchmarking and process improvements as well as an iron-clad resource for claim defense. "They who have the most paper, win."

Specialties

ENGINEERING / PROJECT ADVISORY

- Asset Integrity Management
- Commissioning & Turnover Planning Assessments
- Constructability Assessments
- Debottlenecking & Optimization
- Design Assessments
- Design Data Aggregation for Operations & Maintenance
- Engineering Risk Assessments (HAZOP, SIL)
- Equipment Sizing & Standardization Assessments
- FEED Completeness Assessments
- FEL / Gating Assessments
- Forensic Contract Analyses, Claim Development. & Productions
- Modularization Fabrication & Assembly Assessments
- Modularization Philosophy & Design Assessments
- Process / Facility Performance Analysis
- Process & Control Narrative Assessments
- Process Simulations (HYSYS, UNSIM)
- Procurement Strategy Assessments
- Project Controls (Schedule & Cost) Assessments
- Project Delivery & De-risking Assessments
- Project Engineering Assessments
- Project Execution Assessments
- Project Feasibility Analysis
- Refining / Upgrading Process Assessments
- · Safety Engineering Assessments
- Specification Development
- · Steel Design Assessments
- Utilities & Offsite Engineering Assessments
- Value Engineering Assessments

MANAGEMENT ADVISORY

- Economic Modelling & Evaluations (DCF, scenarios, sensitivities)
- Energy Efficiency & Conservation Assessments
- Procedures & Policies Development
- · Program Management
- Project Documentation Analyses
- Project Execution Risk Analysis
- · Strategic Planning & Management
- Training
- Workshop Planning & Facilitation

REGULATORY ASSESSMENT & ADVISORY

- Boiler, Boiler External Jurisdictional Requirements
- · Code Interpretation Analyses
- Design Registration Jurisdictional Requirements
- Foreign Equipment Jurisdictional Import Requirements
- Jurisdiction / Code-break Determinations
- Pressure Relief Jurisdictional Requirements
- Pressure Relief Systems Assessments
- Regulatory Requirements & Compliance (Alberta)
- Regulatory Requirements & Compliance (BC)

TECHNOLOGY RESEARCH & ADVISORY

- Biomass / Hog Fuel Utilization
- Carbon Capture
- CO2 EOR Advisory
- Electric Vehicle Implementation
- Experiment Planning
- Fresh Water & Brackish Water Treatment
- Hydraulic Fracturing Produced Water Management
- Phase Separation New Tech
- Pilot Planning
- Steam Process & Blowdown Optimization
- Technology Evaluations (Manufacturing Readiness)
- Technology Evaluations (Technology Readiness)
- · Technology Scoping & Landscaping
- Technology Scouting
- Thermal Produced Water Management
- Water Chemistry & Analytical Testing
- Water Management Alkalinity Reduction
- Water Management Filtration
- Water Management Ion Exchange
- Water Management Lime Softening
- Water Management Regeneration Systems
- Water Management Sludge Management
- Water Management Slurry Systems
- Water Management Jurisdictional Requirements
- Water Management Evaporators
- Water Technology Assessment Lifecycle Costs

Meet Our Team

- James Bremner Process & Simulation Expert
- Darlene Clarke Sustainable Energy & Program Management Consultant
- Tammy Cooper Document Management Expert
- Bradley Fossen Managing Director
- Ross Harper Design & Construction Expert
- Caroline Mussbacher Water Expert
- Scott Mussbacher Water Process Expert
- Jackie Pearce Document Expeditor & RecordsProfessional
- Nick Quinn Project Controls Specialist & Forensic Analyst

Our Pedigree

You can rely on our experts to provide effective, practical, multi-faceted advice. APG consultants are engineers, MBA's, economists, technologists, scientists, and seasoned veterans in their field. This combination of industry, technical, managerial, and financial experience, ensures that all of your business elements are considered.



CONTACT

info@thinkapg.com Salt Spring Island, BC Canada ph# (250)930-2426 www.thinkapg.com